

FIG. 1A

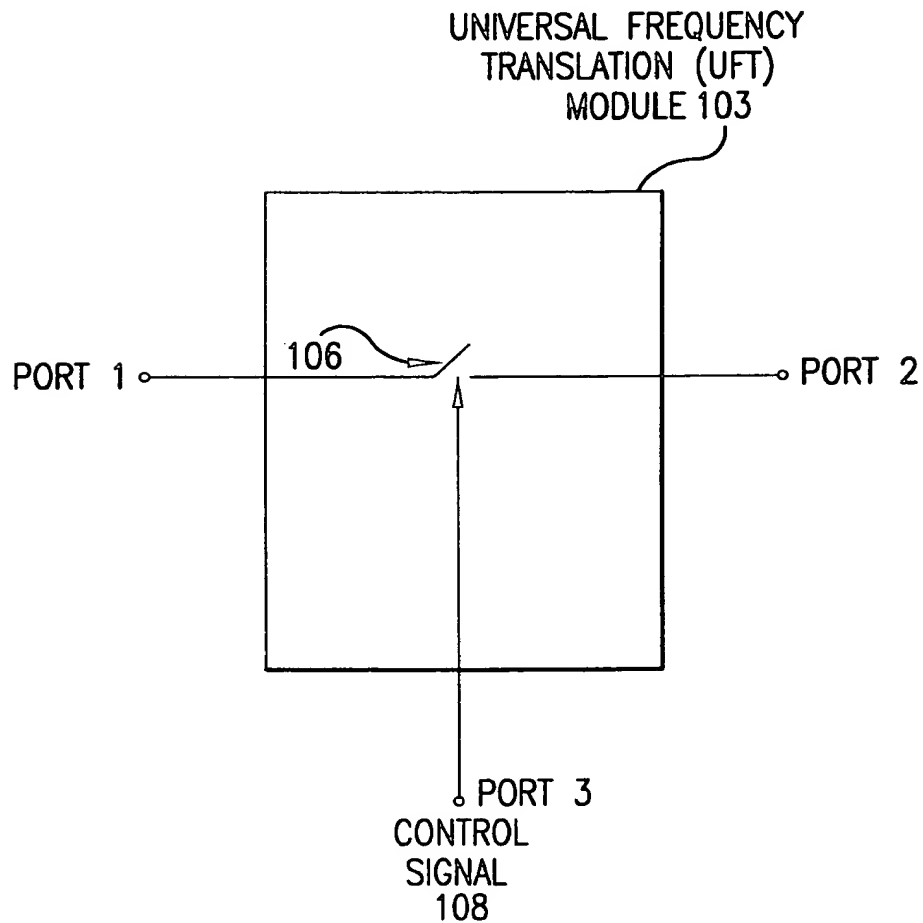


FIG. 1B

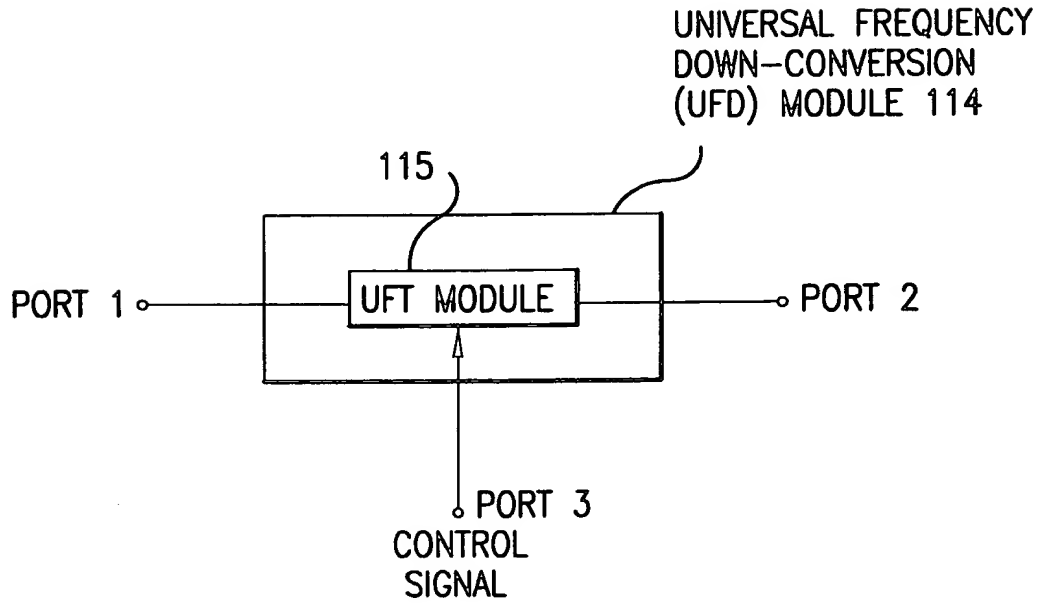


FIG. 1C

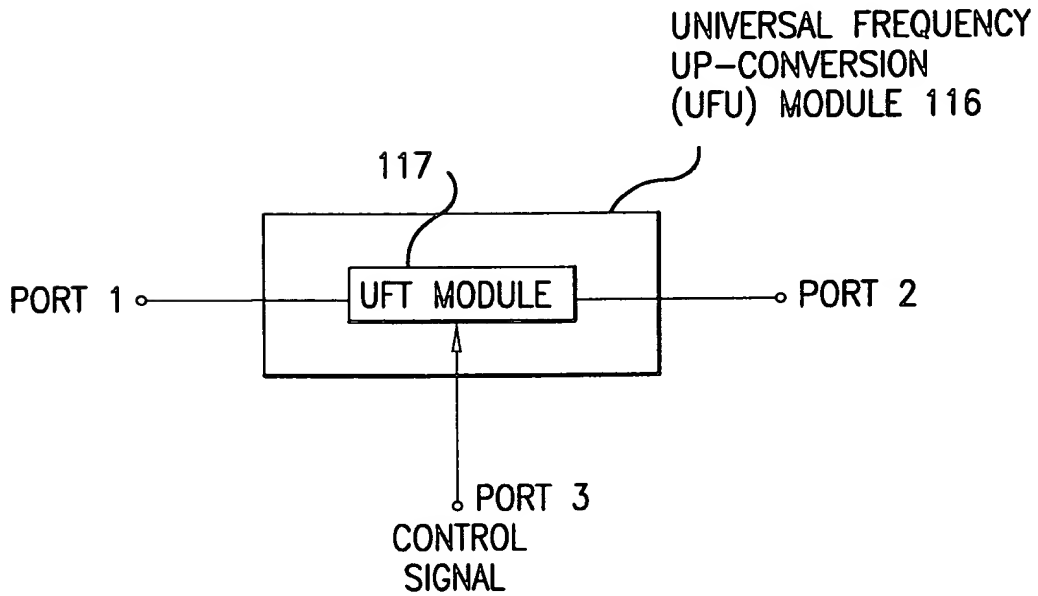
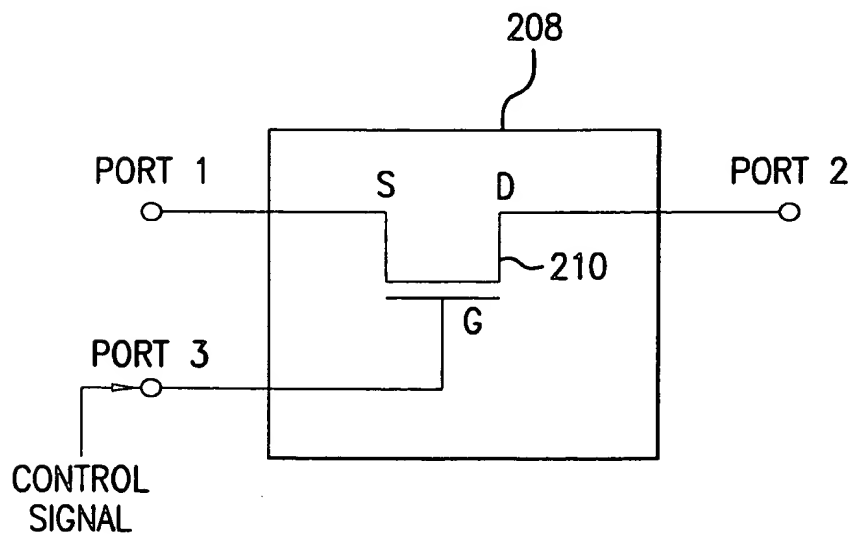
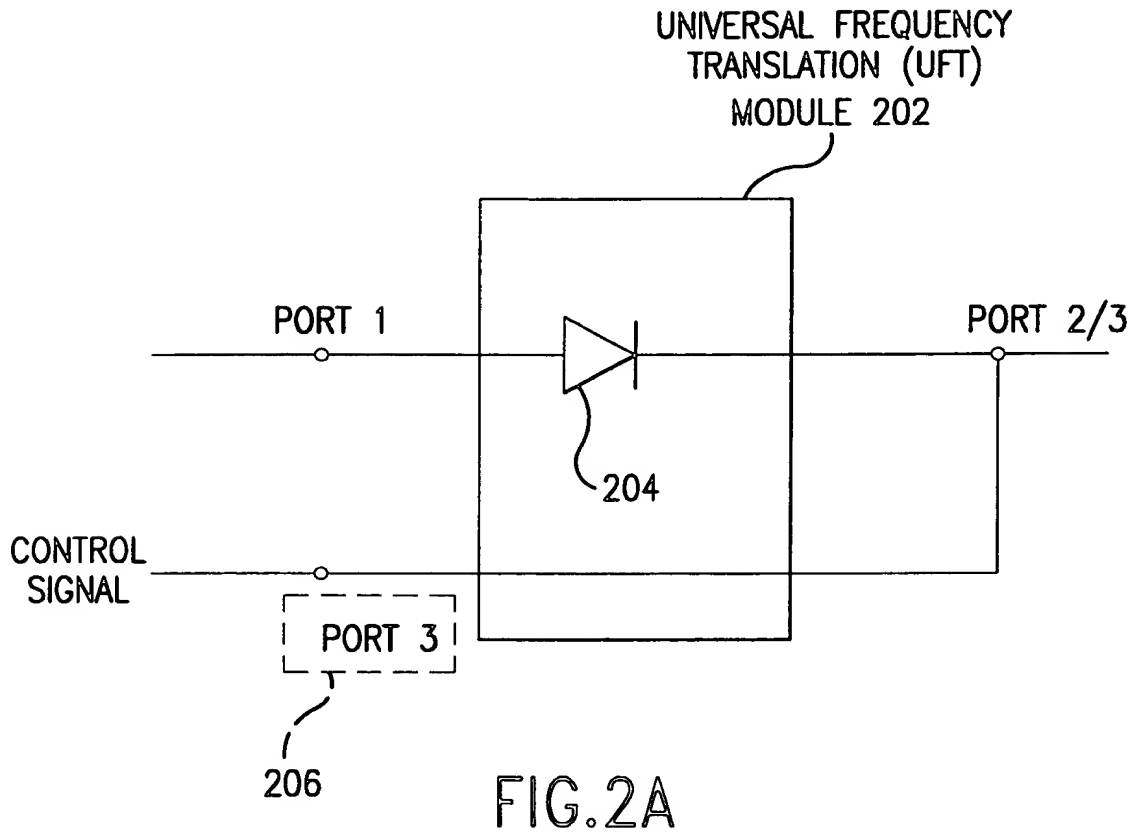


FIG. 1D



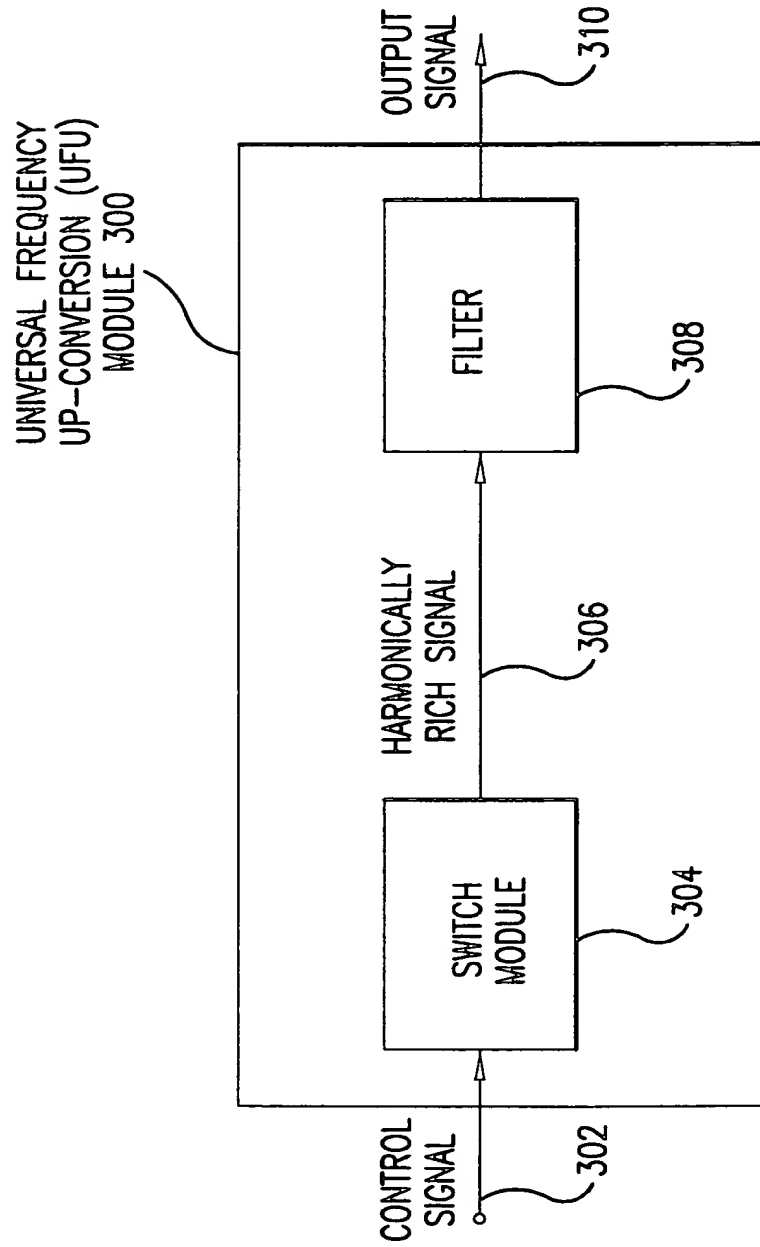


FIG. 3

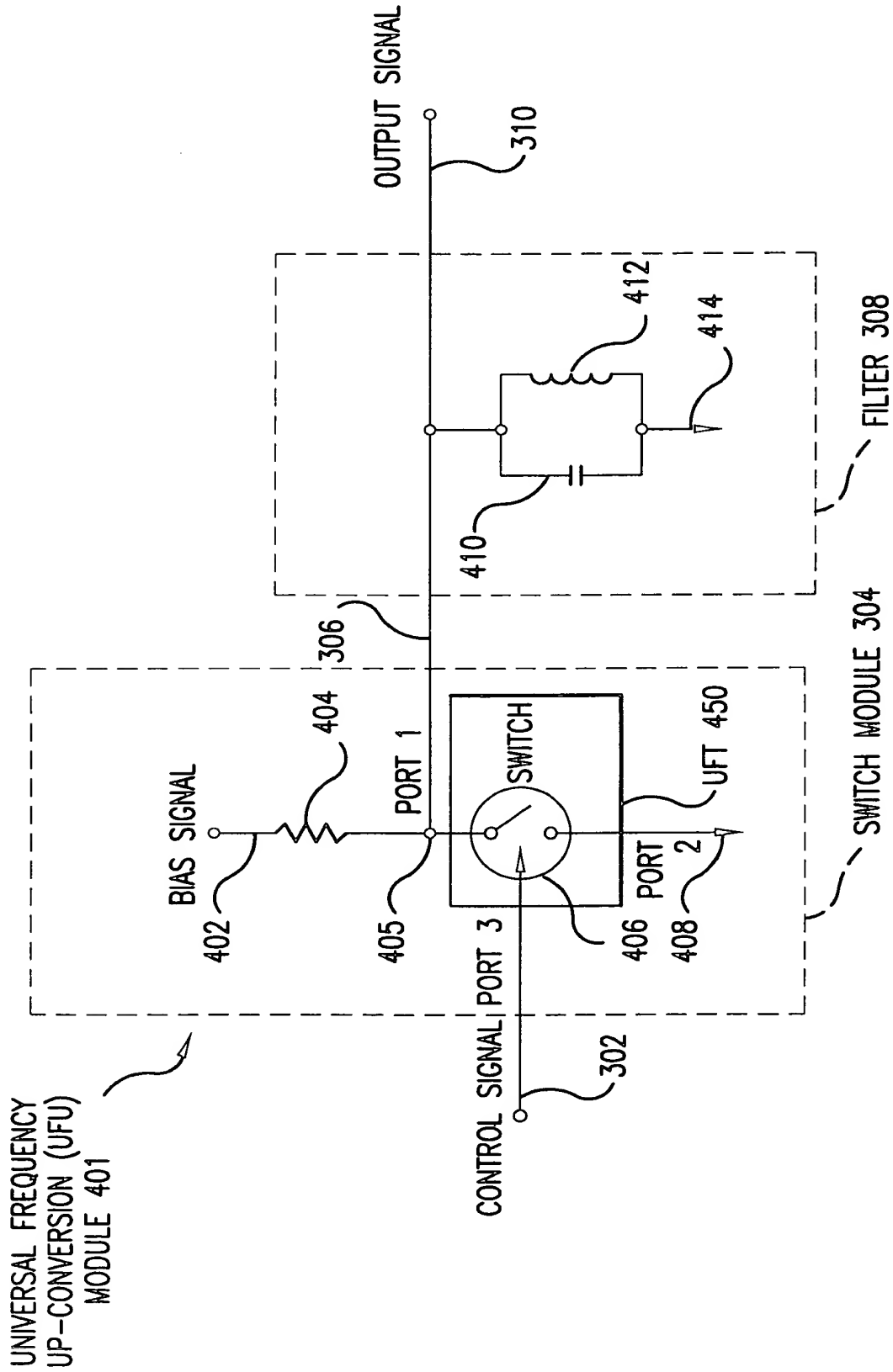


FIG. 4

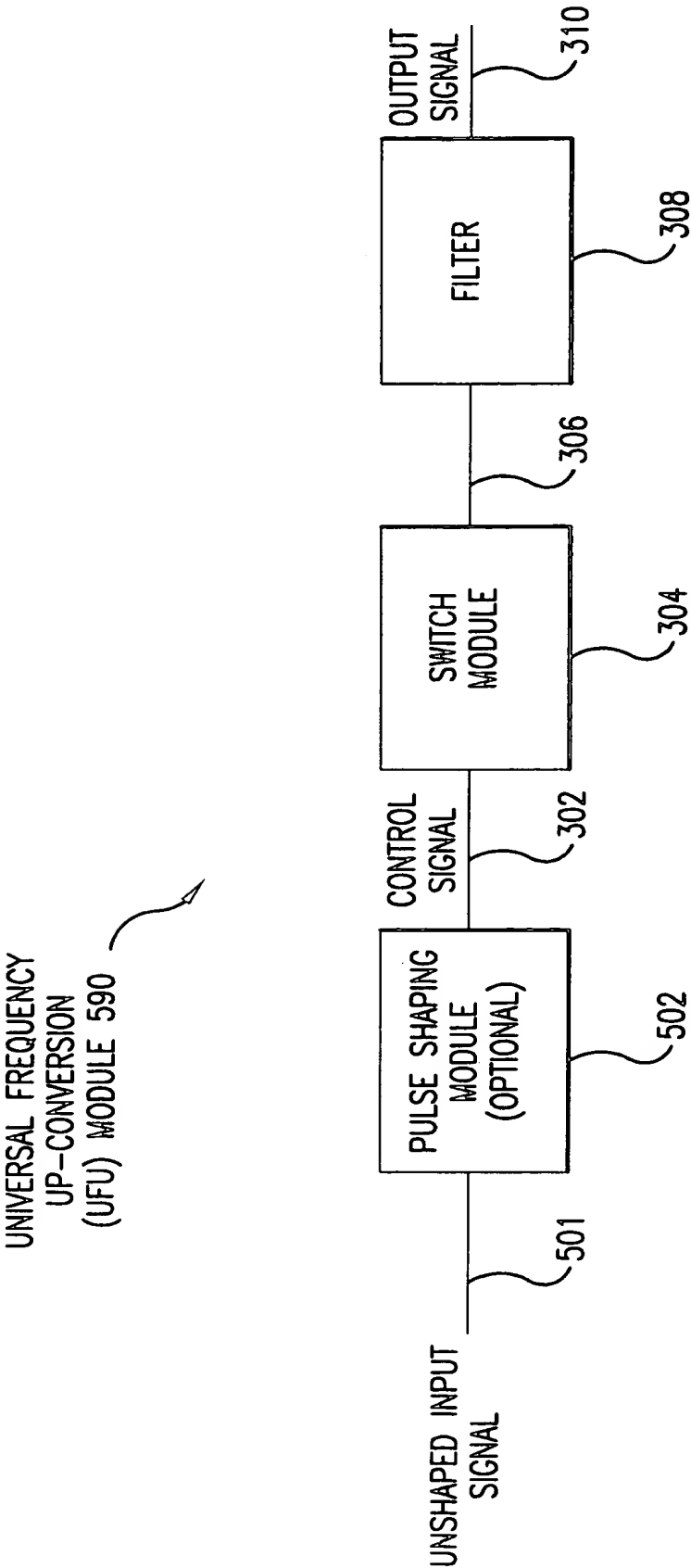
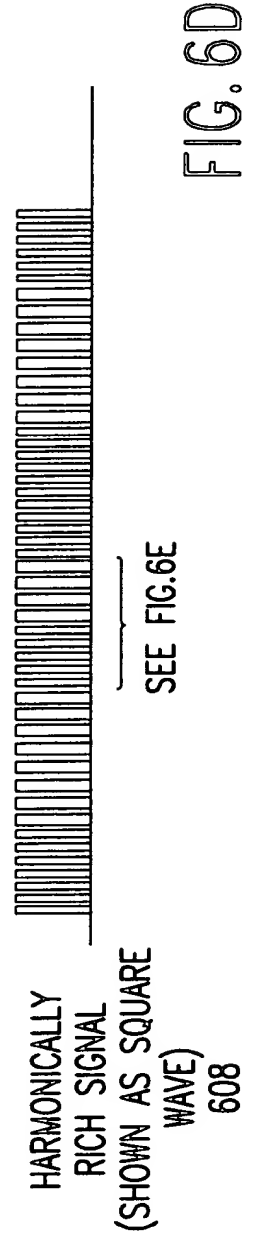
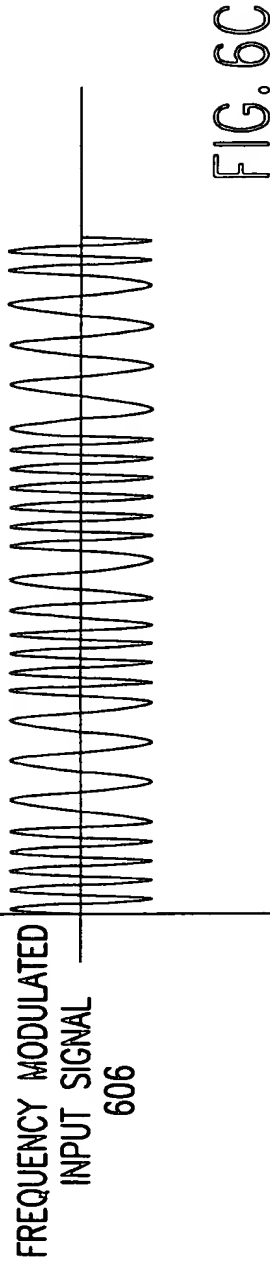
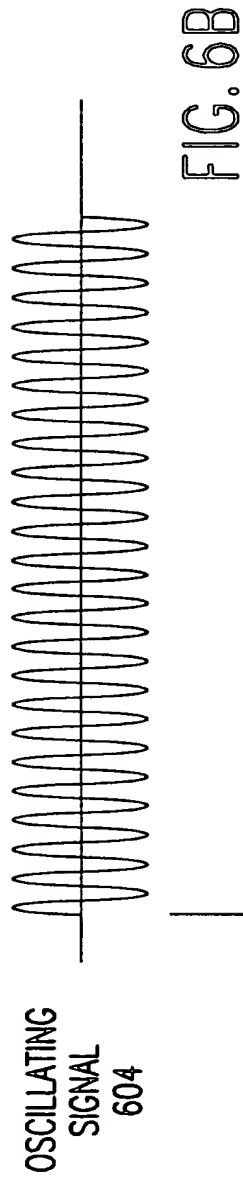
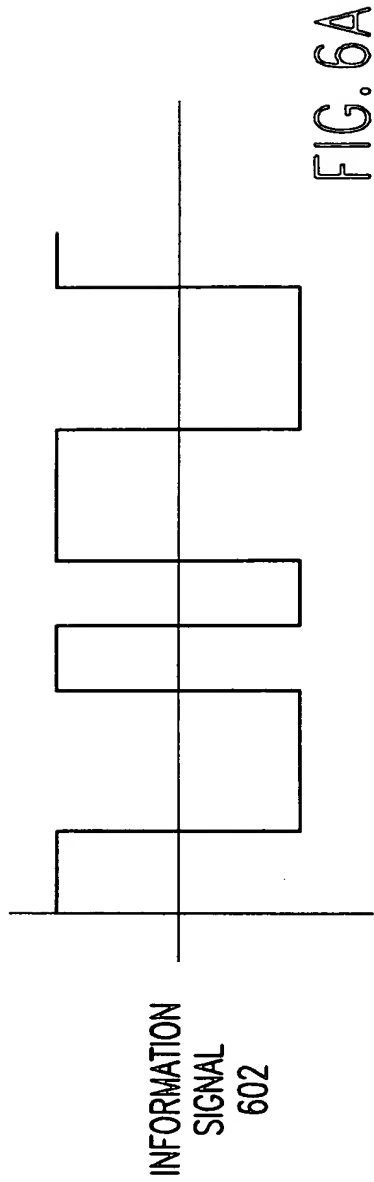
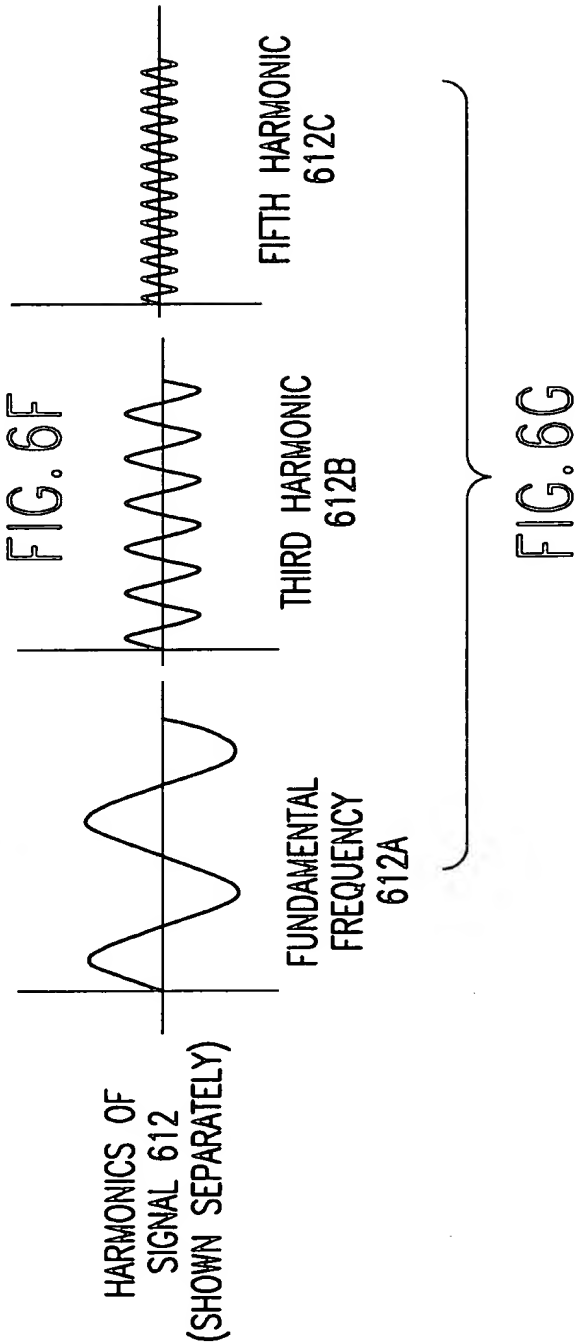
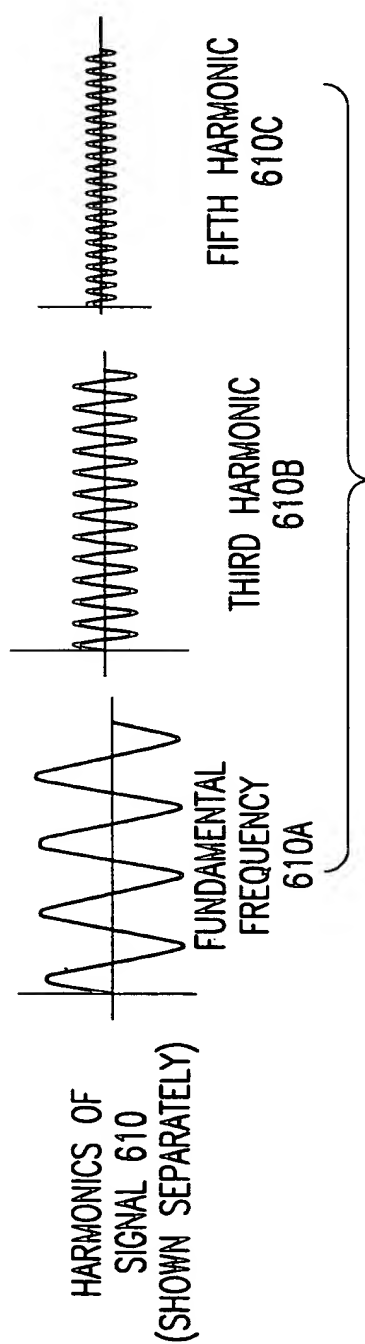
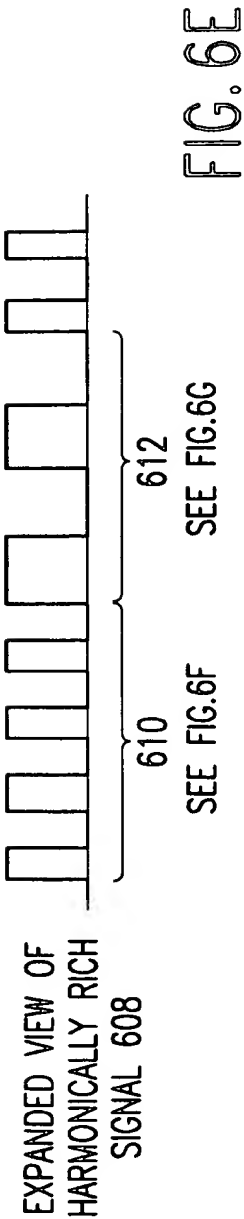
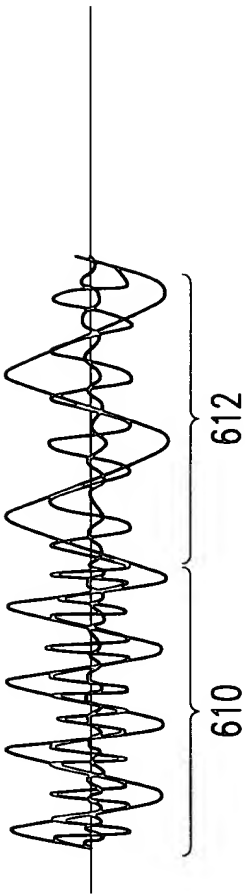


FIG. 5

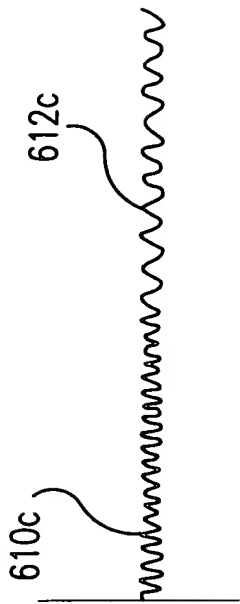






HARMONICS OF
SIGNALS 610 AND
612
(SHOWN SIMULTANEOUSLY
BUT NOT SUMMED)

FIG. 6H



FILTERED
OUTPUT
SIGNAL
614

FIG. 6I

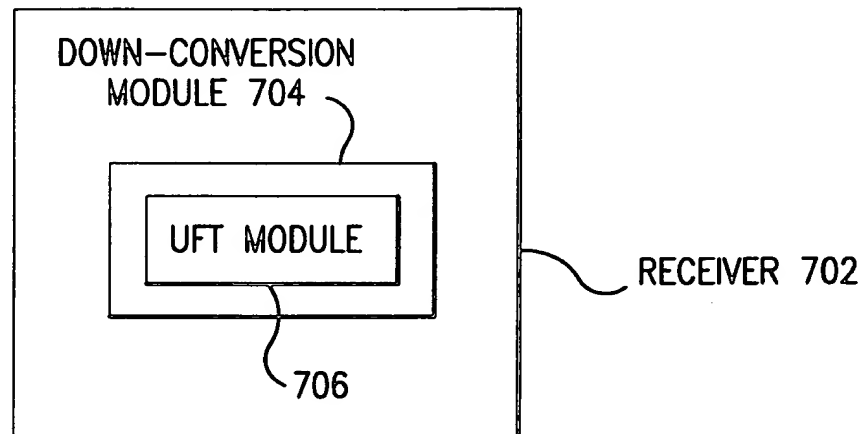


FIG. 7

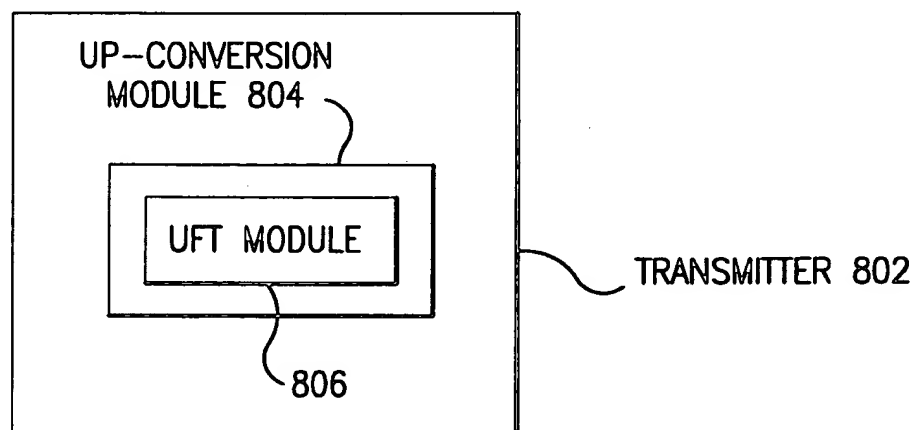


FIG. 8

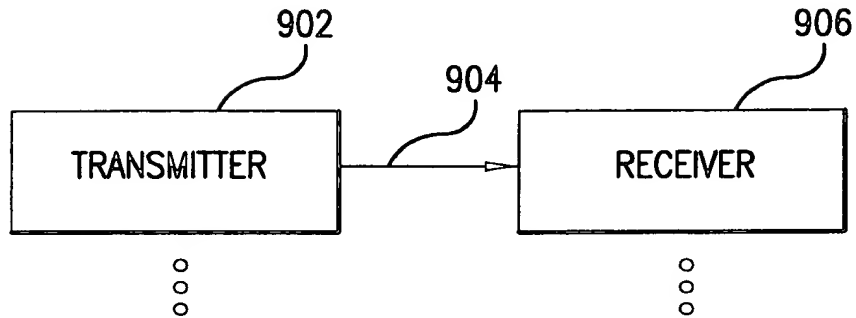


FIG. 9

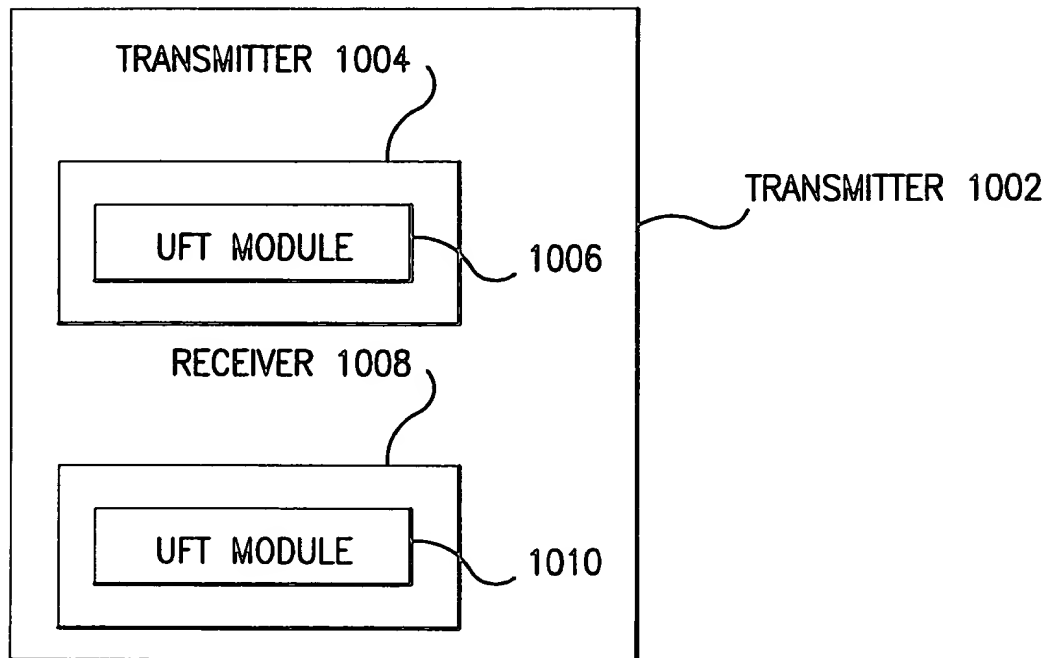


FIG. 10

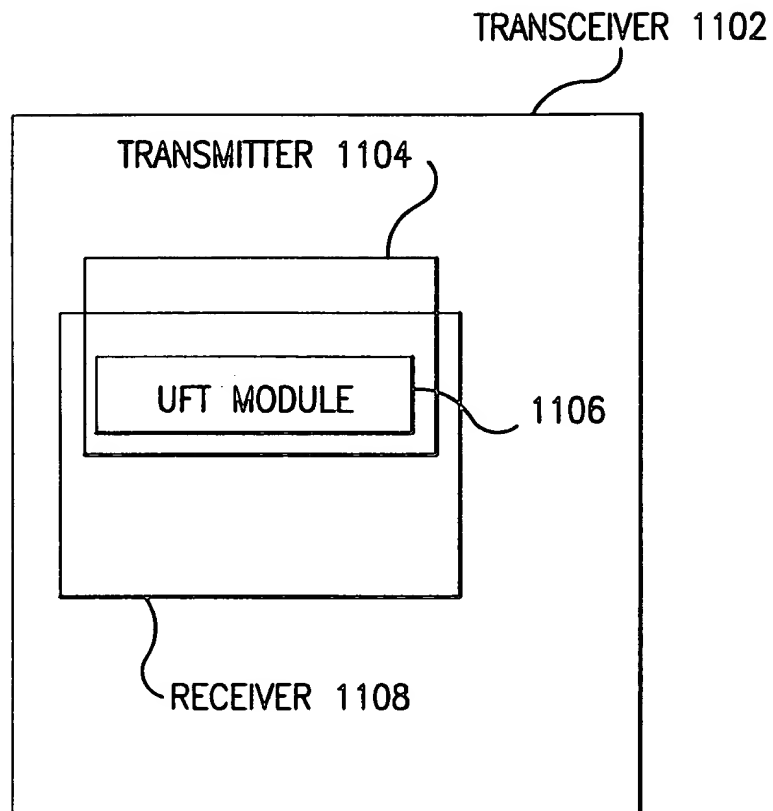


FIG. 11

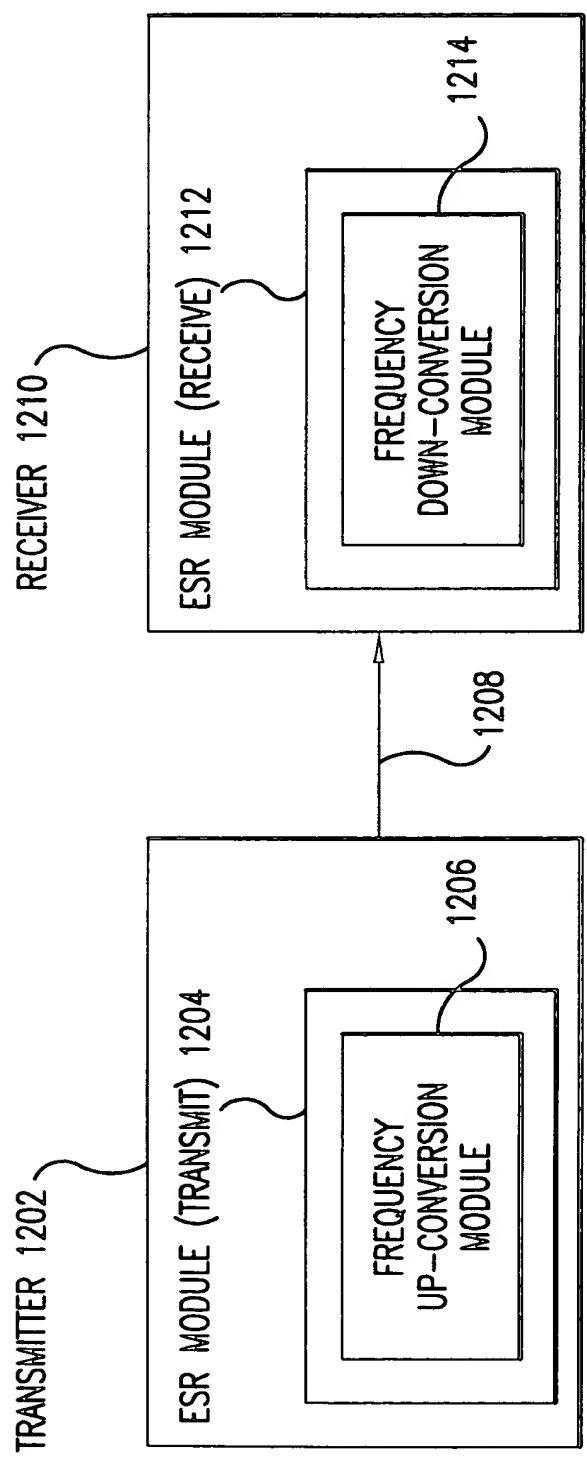


FIG. 12

UNIFIED DOWN-CONVERTING
AND FILTERING (UDF) MODULE 1302

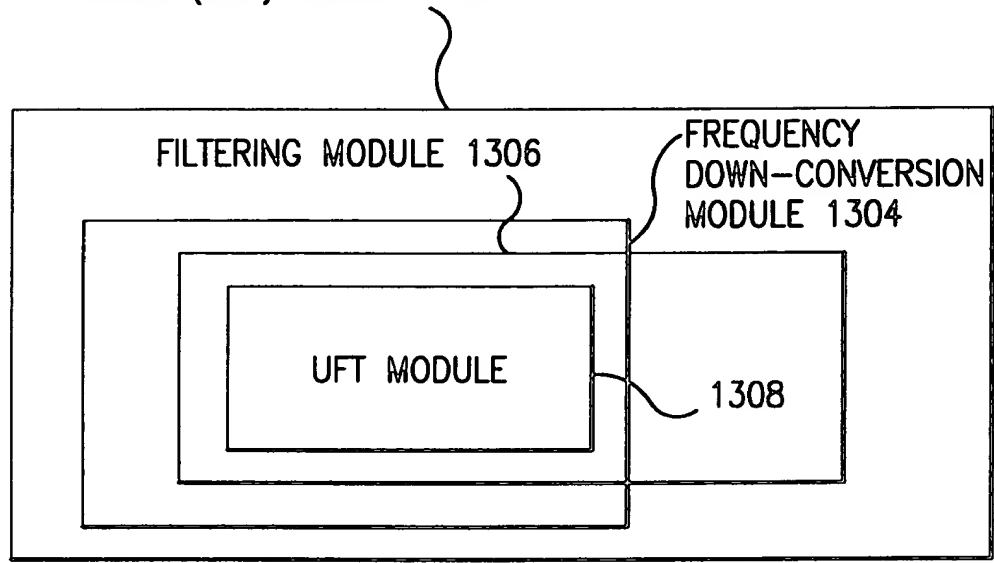


FIG. 13

RECEIVER 1402

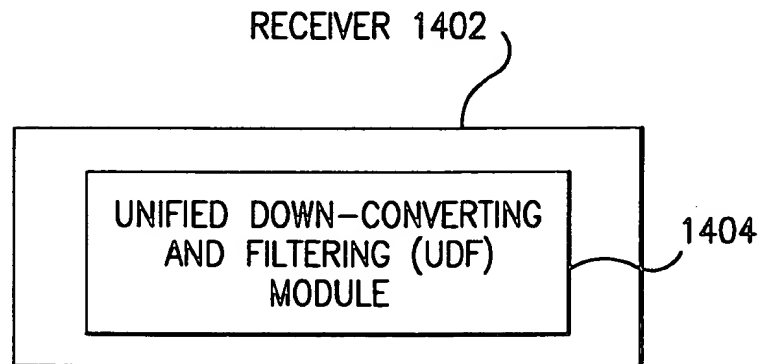


FIG. 14

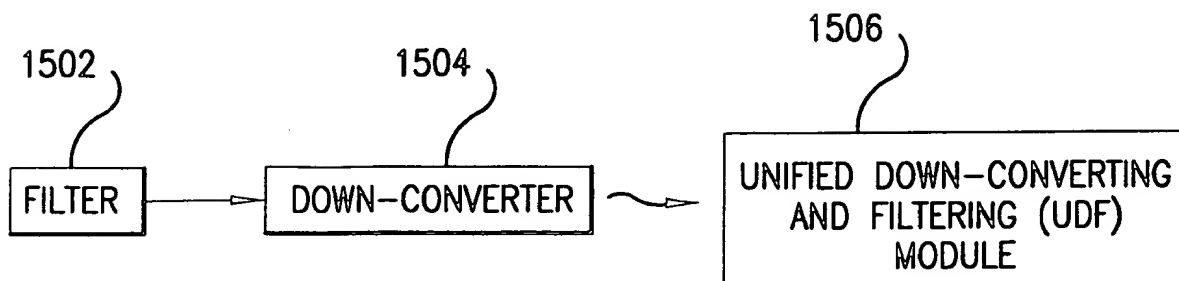


FIG. 15A

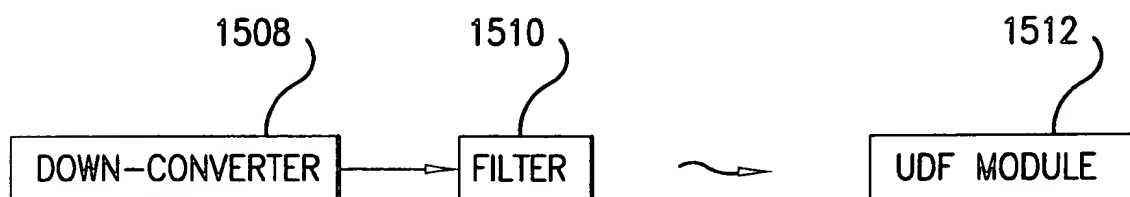


FIG. 15B

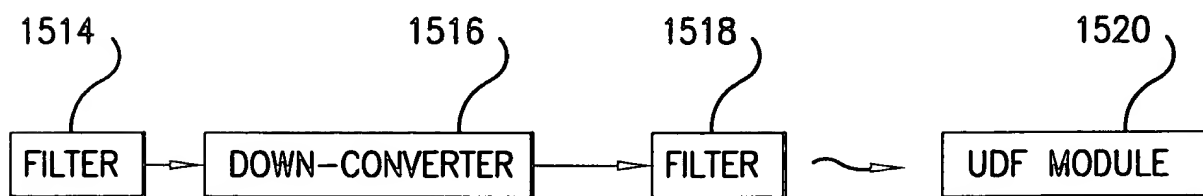


FIG. 15C

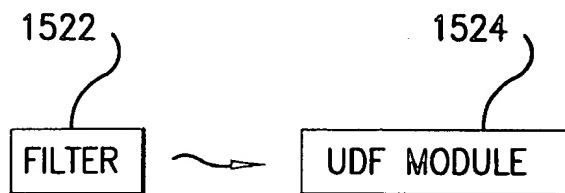


FIG. 15D

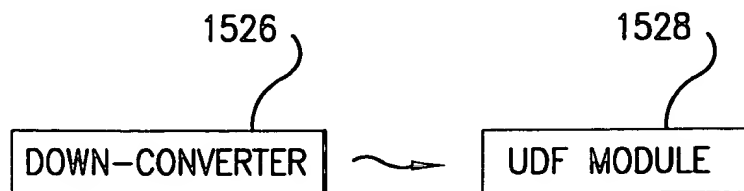
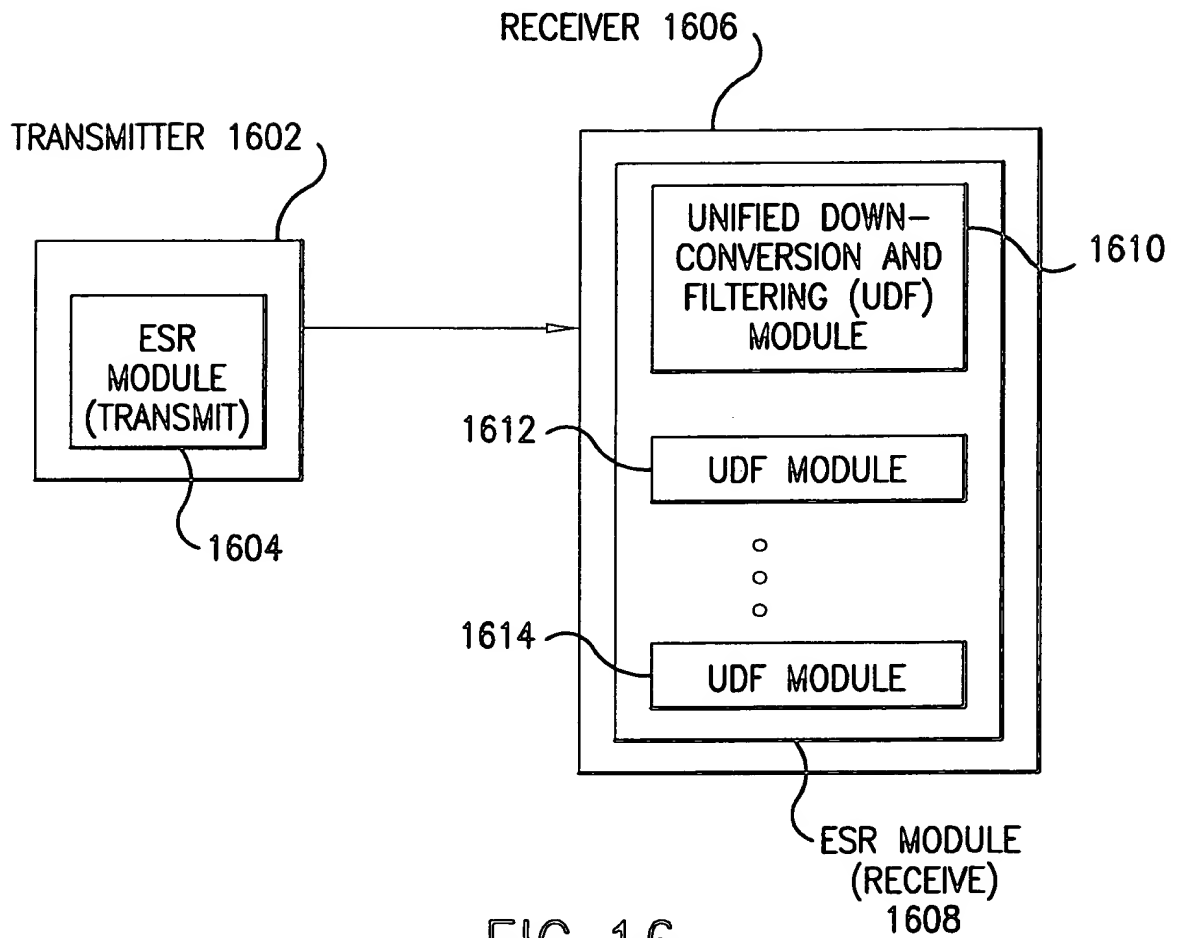


FIG. 15E



FIG. 15F



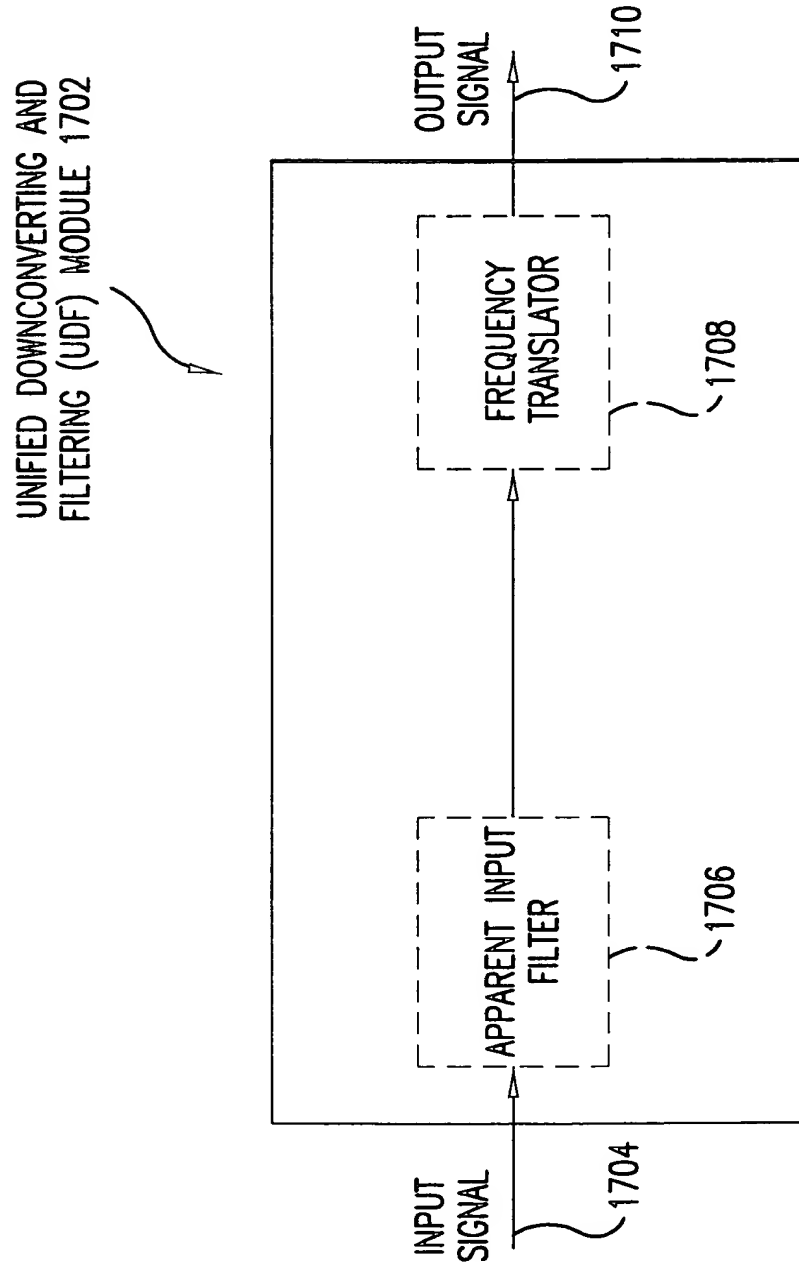


FIG. 17

TIME NODE	t-1 (RISING EDGE OF ϕ_1)	t-1 (RISING EDGE OF ϕ_2)	t (RISING EDGE OF ϕ_1)	t (RISING EDGE OF ϕ_2)	t+1 (RISING EDGE OF ϕ_1)
1902	$V_{I_{t-1}}$ 1804	$V_{I_{t-1}}$ 1808	V_{I_t} 1816	V_{I_t} 1826	$V_{I_{t+1}}$ 1838
1904	—	$V_{I_{t-1}}$ 1810	$V_{I_{t-1}}$ 1818	V_{I_t} 1828	V_{I_t} 1840
1906	$V_{O_{t-1}}$ 1806	$V_{O_{t-1}}$ 1812	V_{O_t} 1820	V_{O_t} 1830	$V_{O_{t+1}}$ 1842
1908	—	$V_{O_{t-1}}$ 1814	$V_{O_{t-1}}$ 1822	V_{O_t} 1832	V_{O_t} 1844
1910	— 1807	—	$V_{O_{t-1}}$ 1824	$V_{O_{t-1}}$ 1834	V_{O_t} 1846
1912	—	— 1815	—	$V_{O_{t-1}}$ 1836	$V_{O_{t-1}}$ 1848
1918	—	—	—	—	$V_{I_t} - 0.1 * V_{O_t} - 0.8 * V_{O_{t-1}}$ 1850

FIG. 18

1802

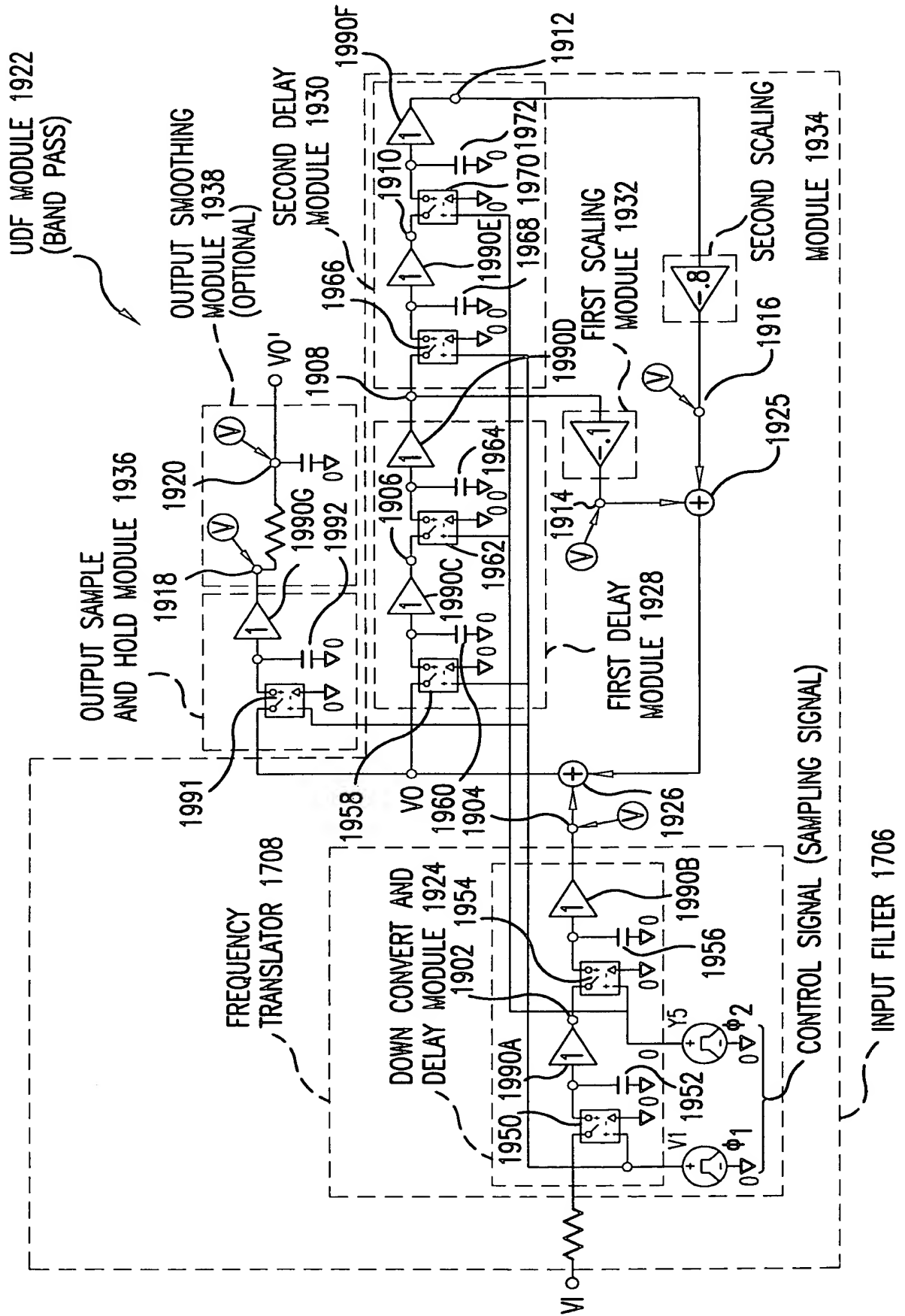


FIG. 19

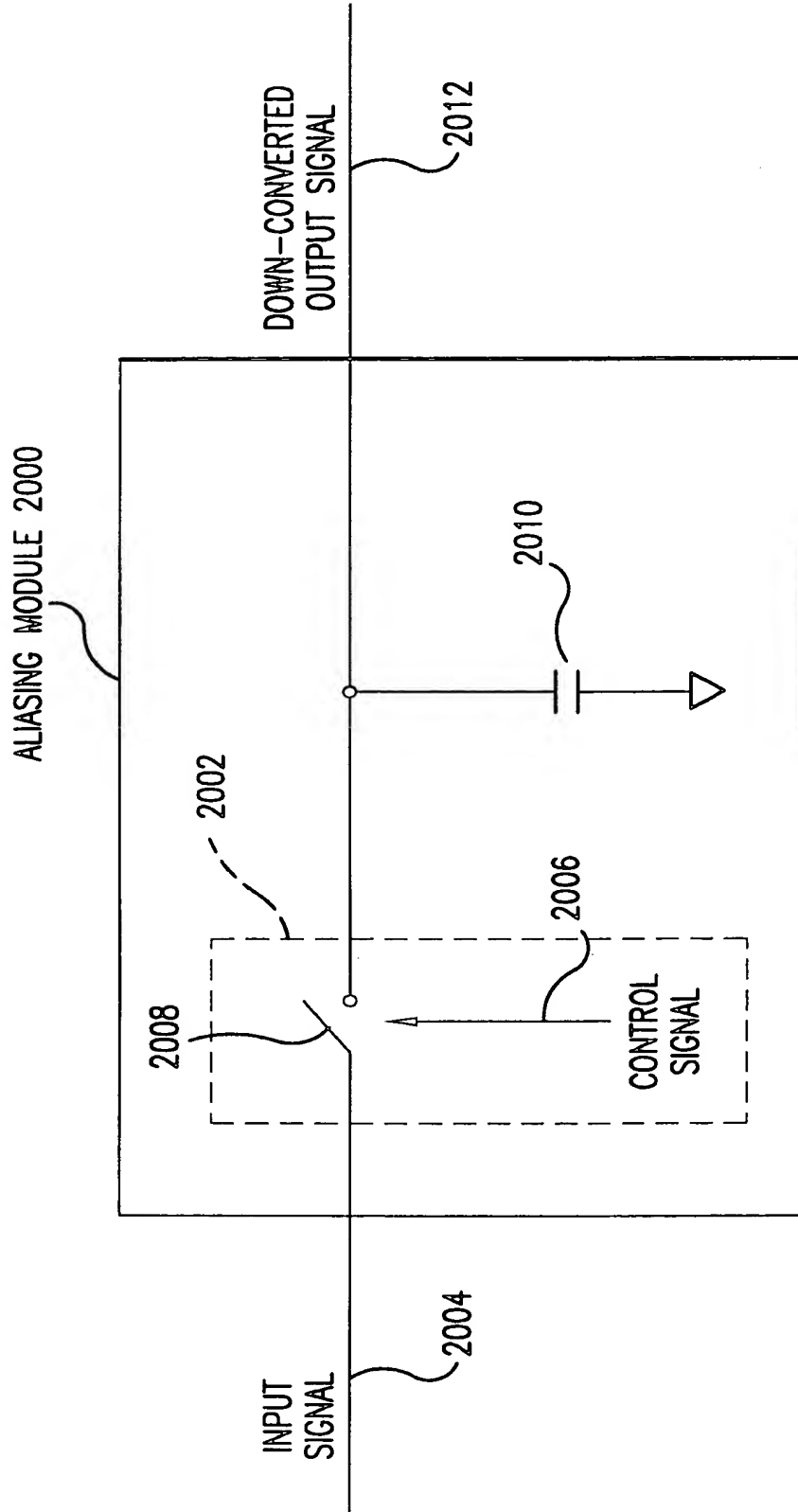


FIG. 20A

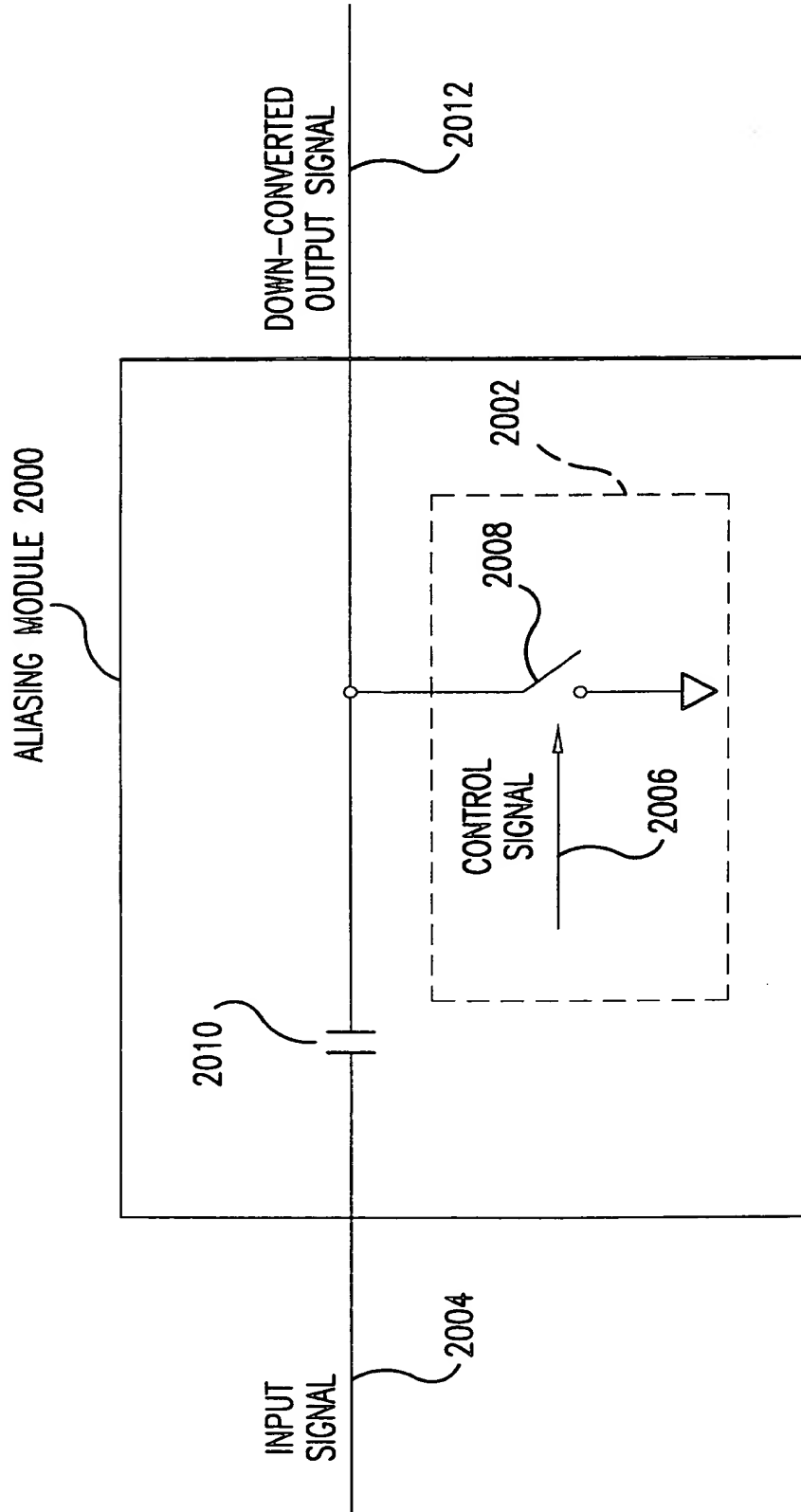
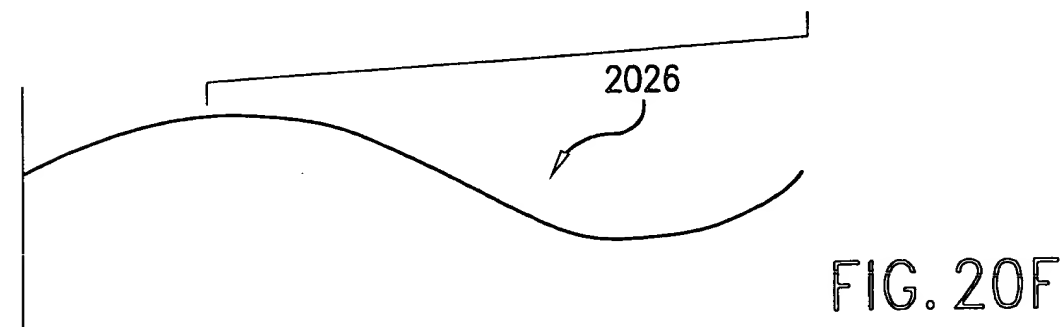
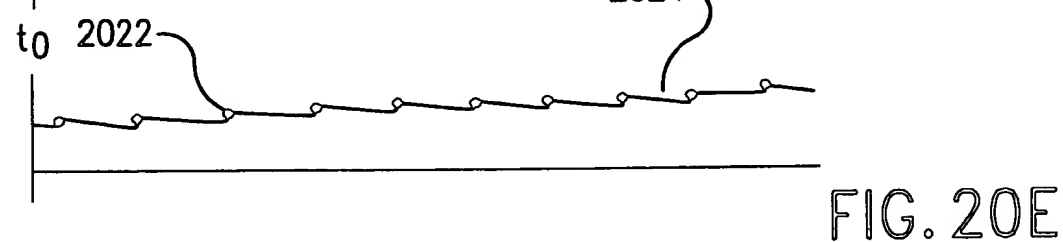
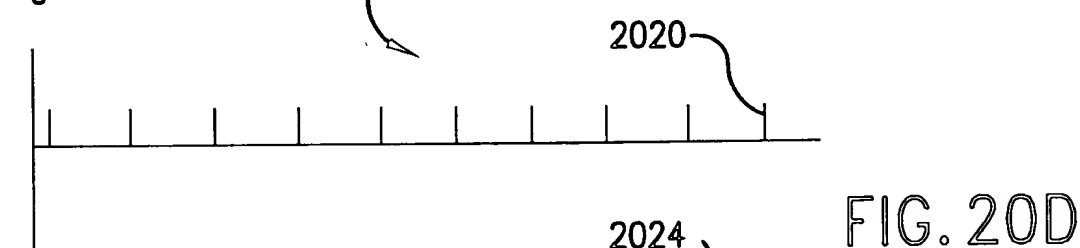
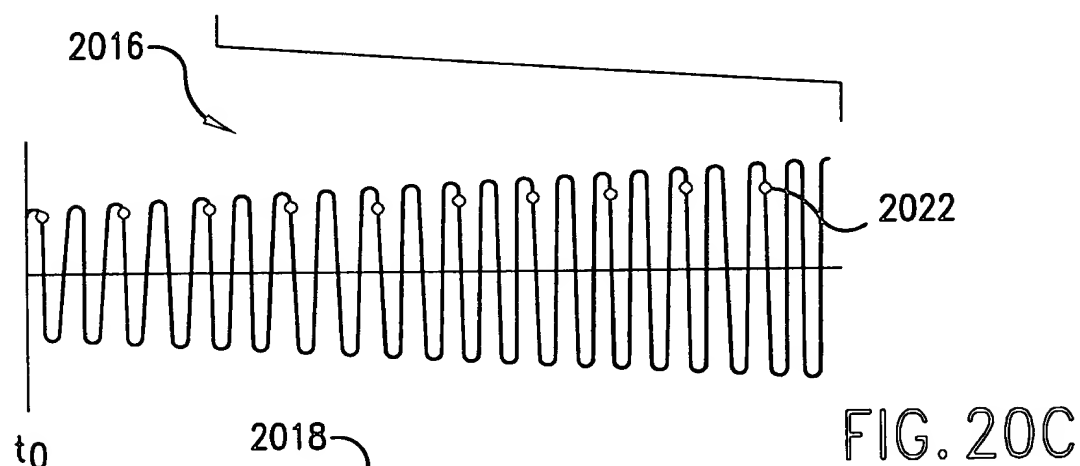
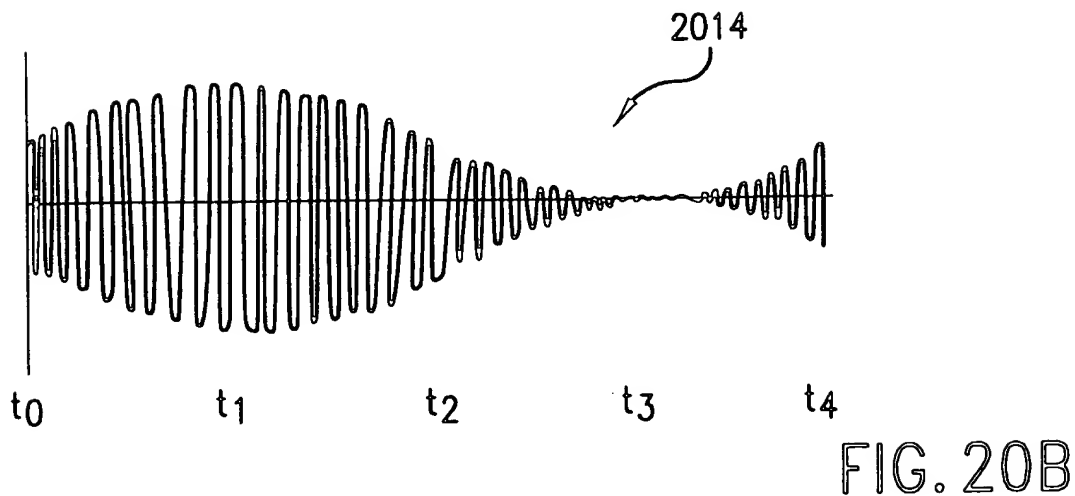


FIG. 20A-1



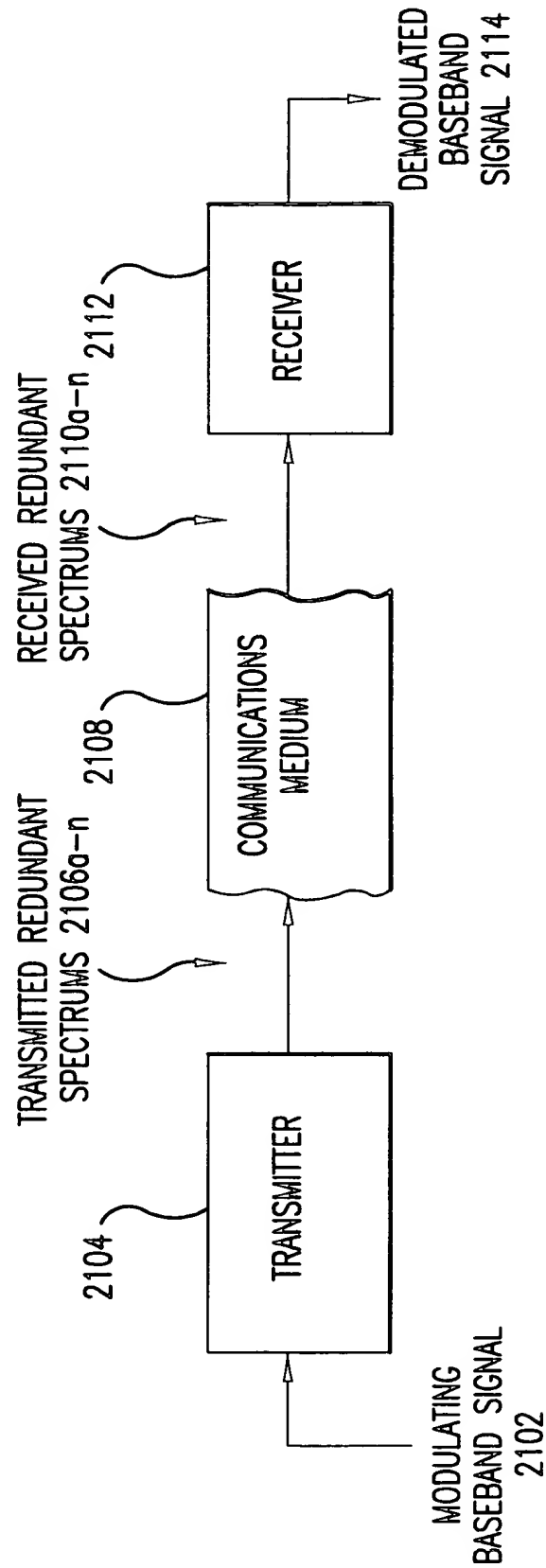


FIG. 21



FIG. 22B

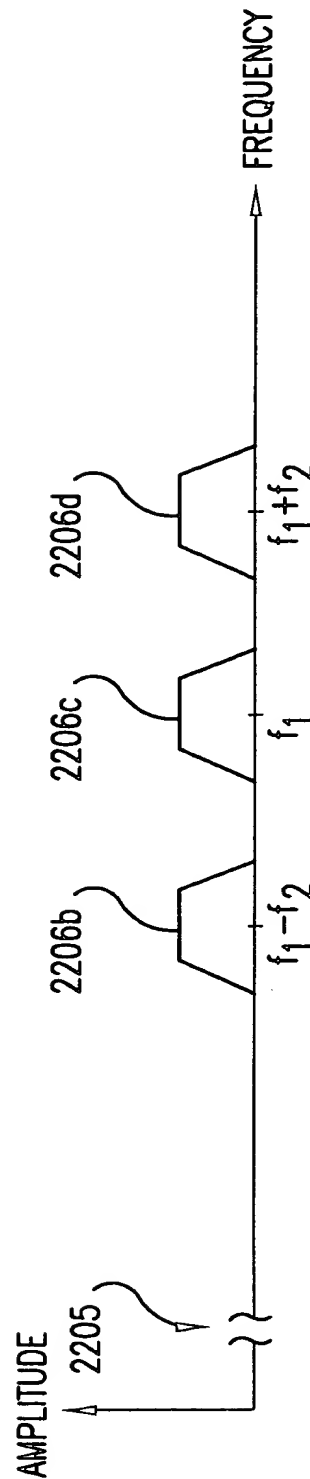
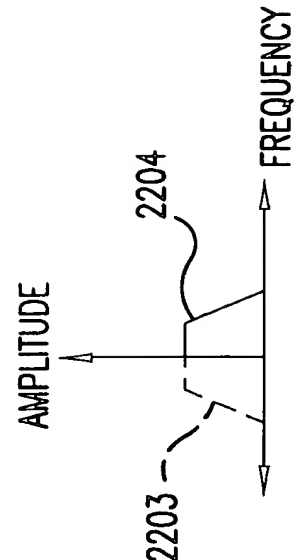


FIG. 22D

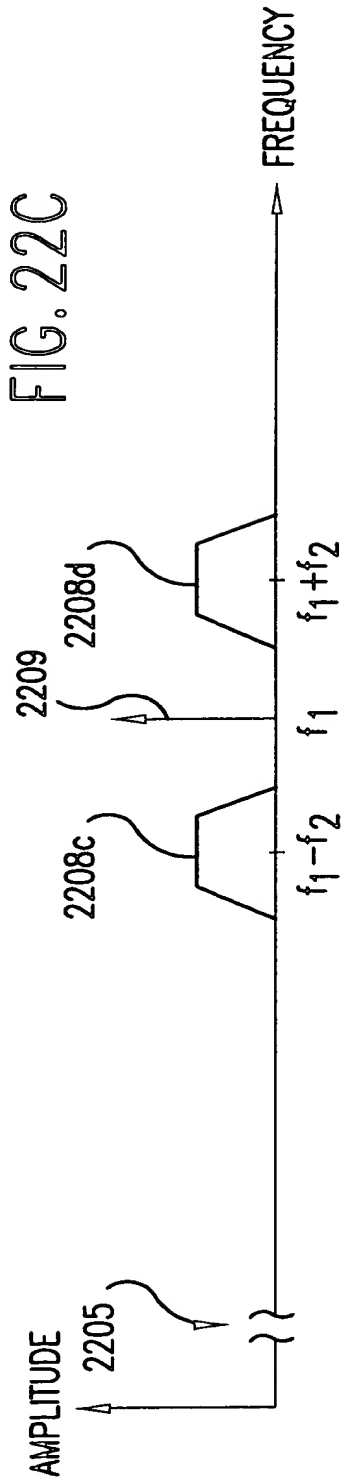


FIG. 22D

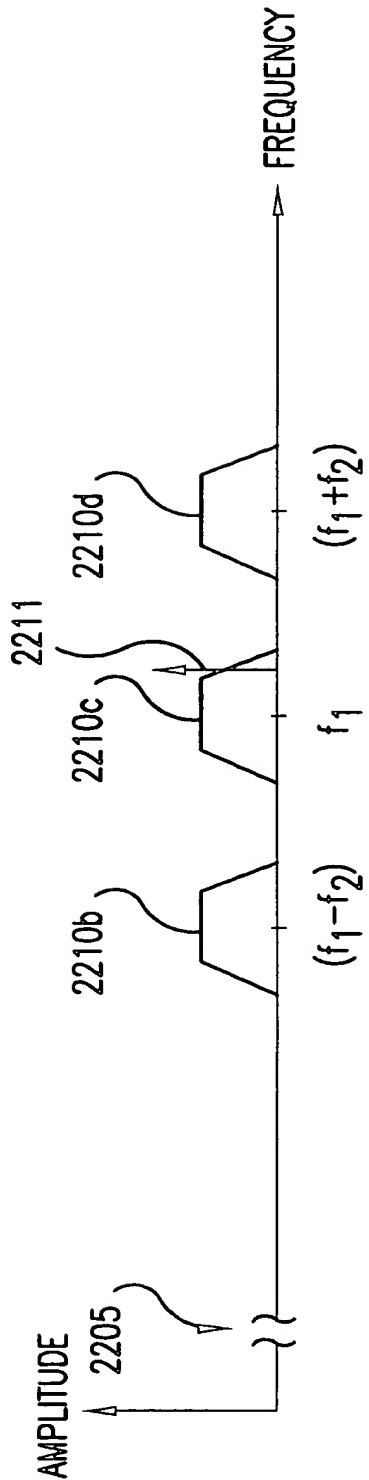


FIG. 22E

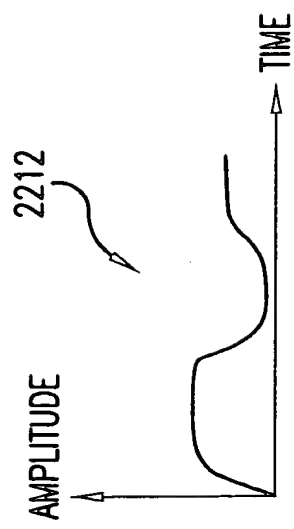


FIG. 22F

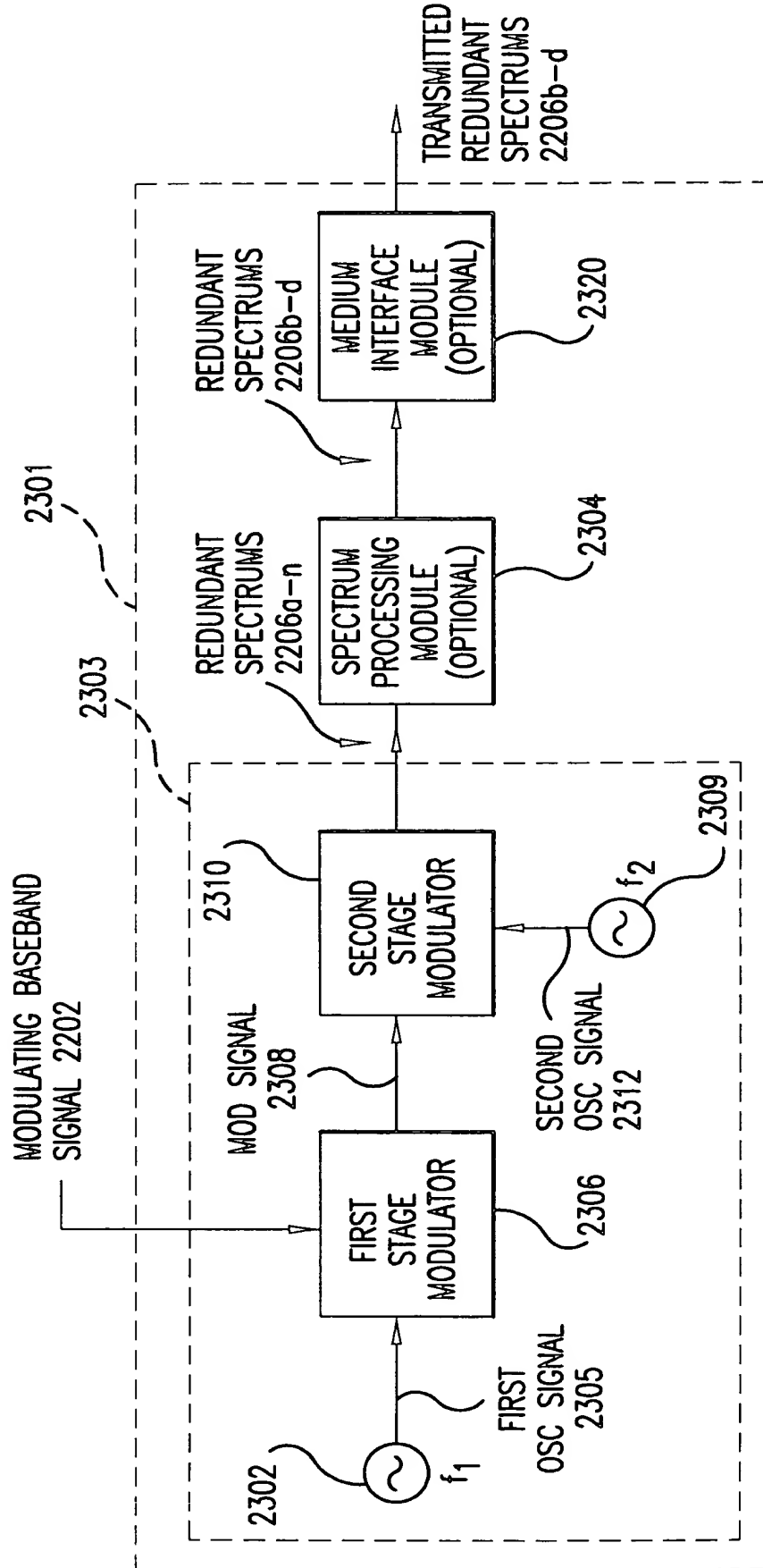


FIG. 23A

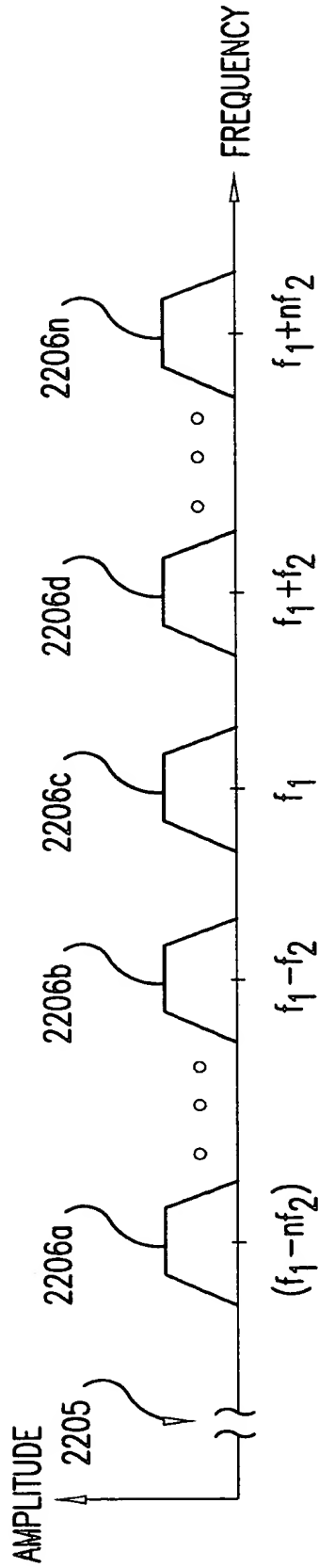


FIG. 23B

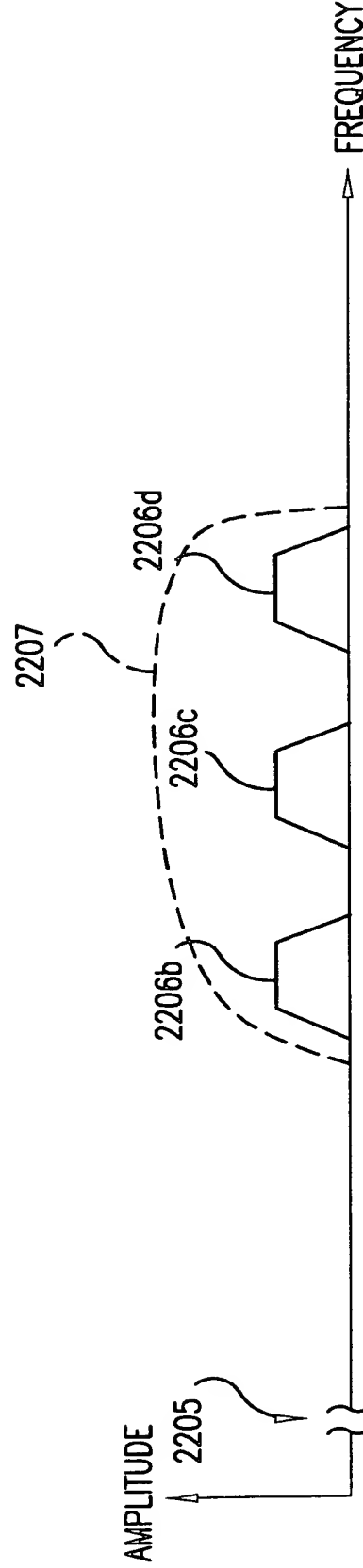


FIG. 23C

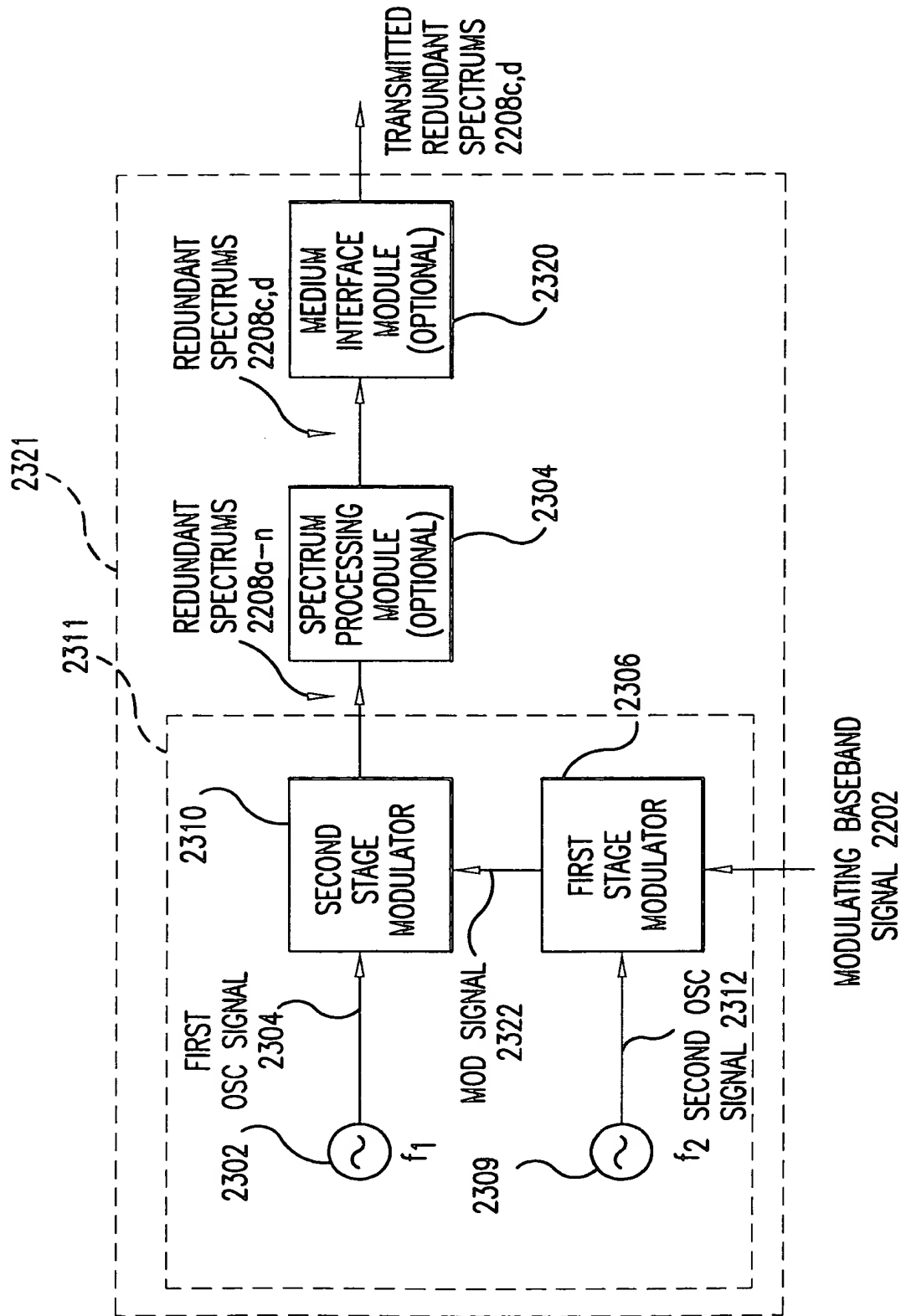


FIG. 23D

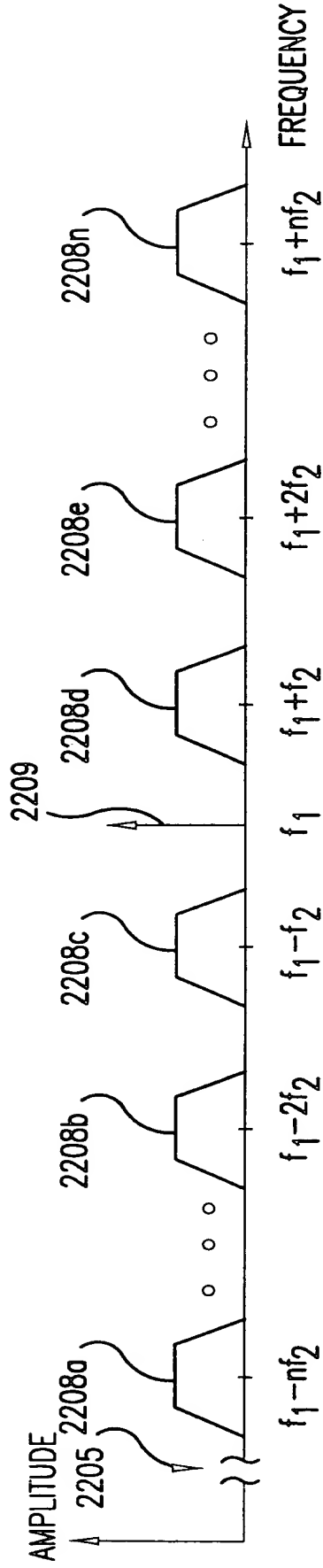


FIG. 23E

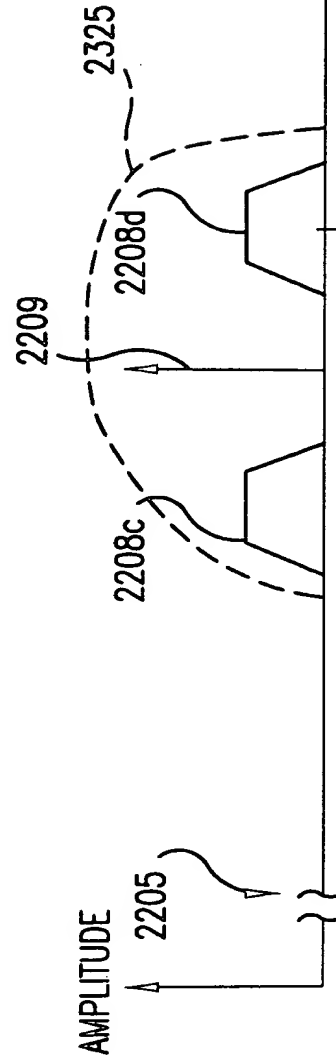


FIG. 23F

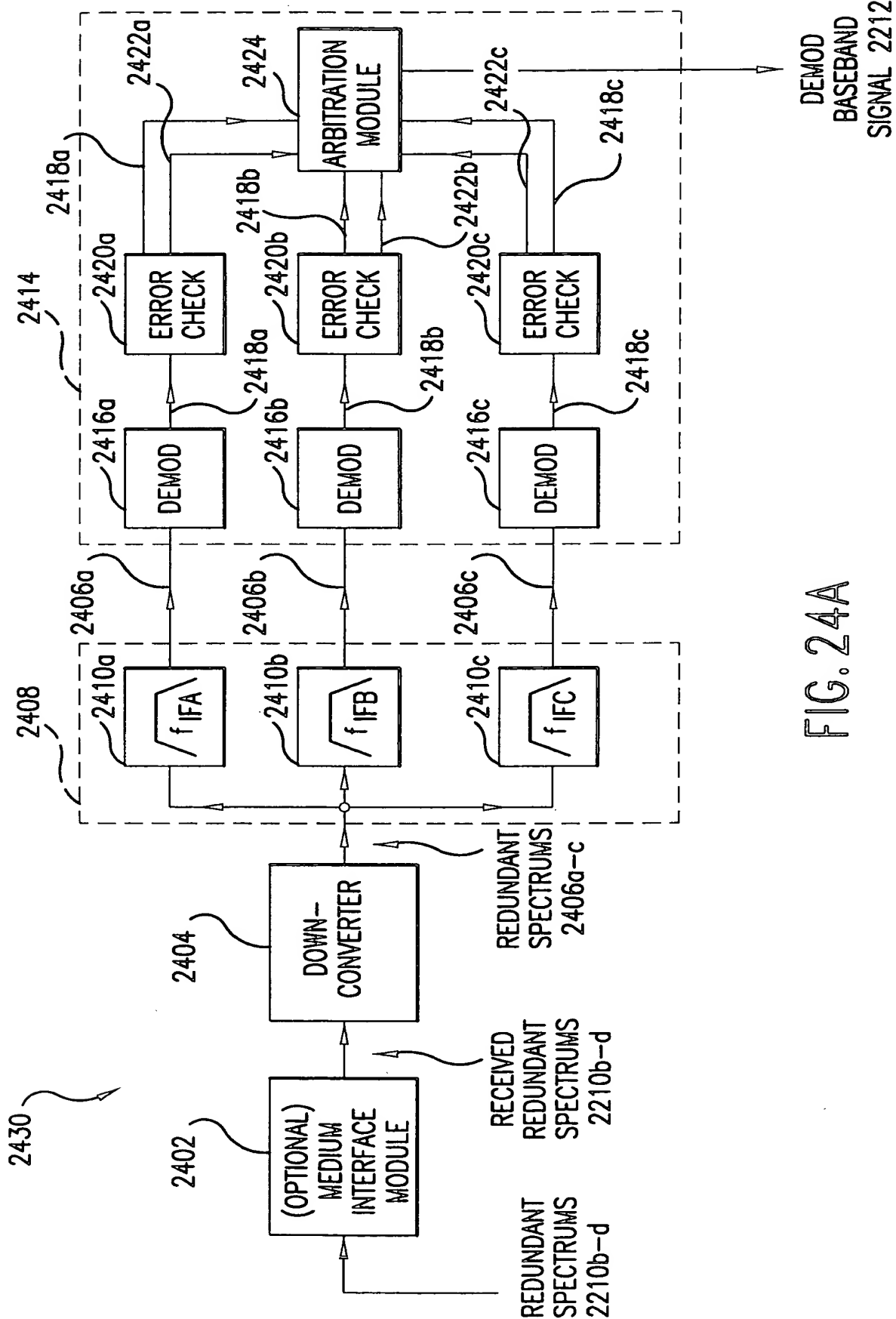
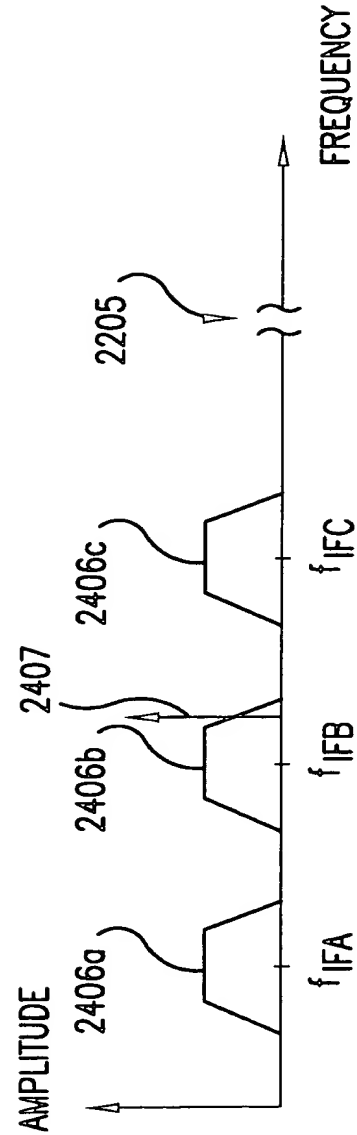
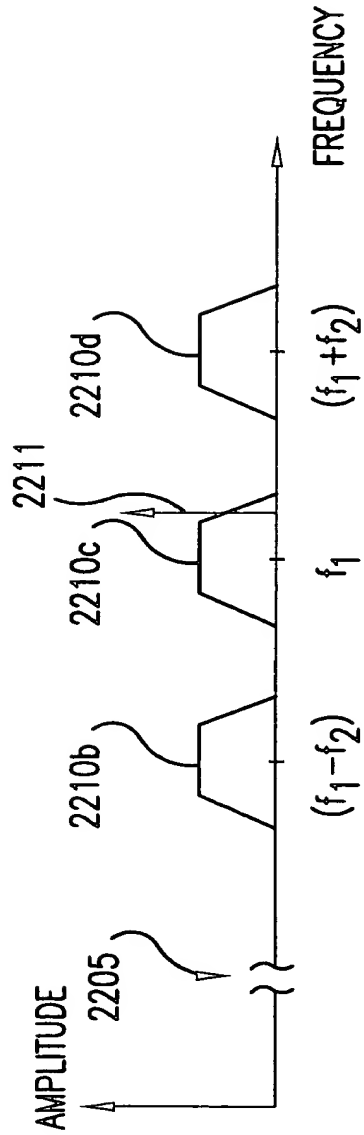


FIG. 24A



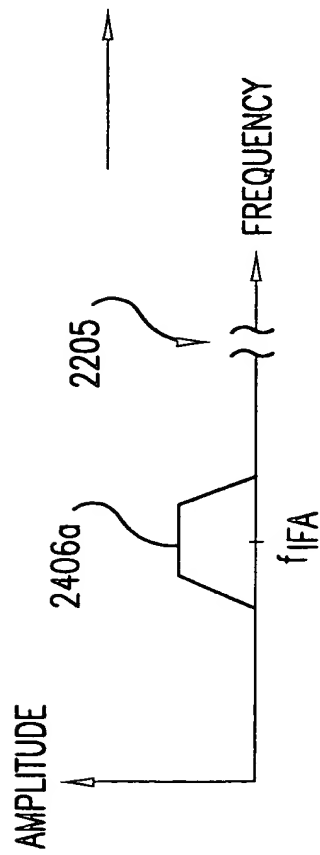


FIG. 24D

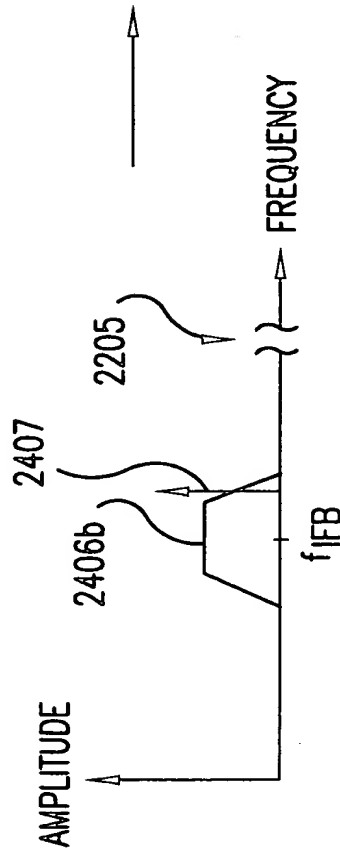


FIG. 24E

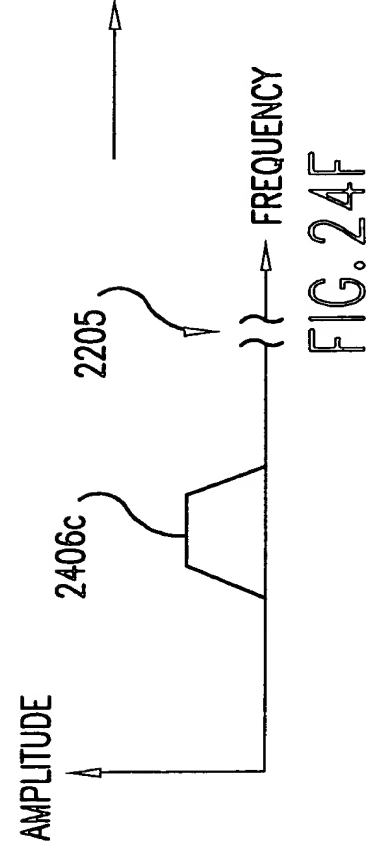


FIG. 24F

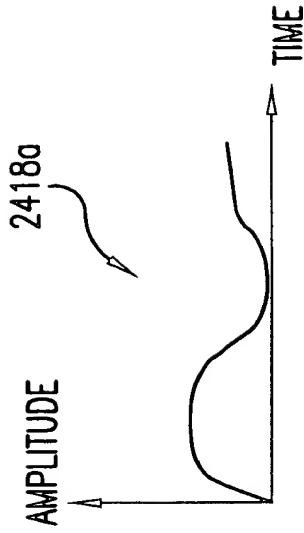


FIG. 24G

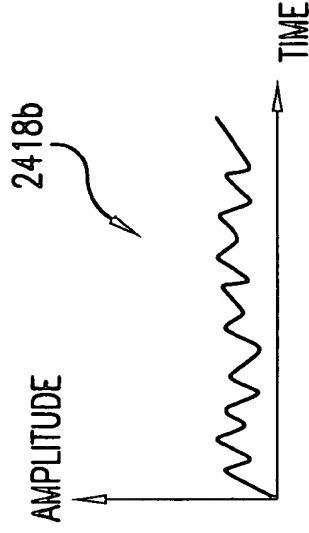


FIG. 24H

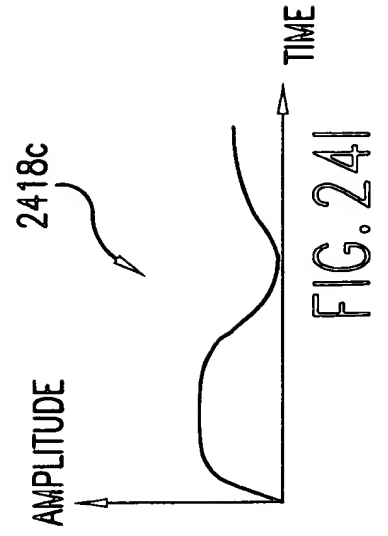


FIG. 24I

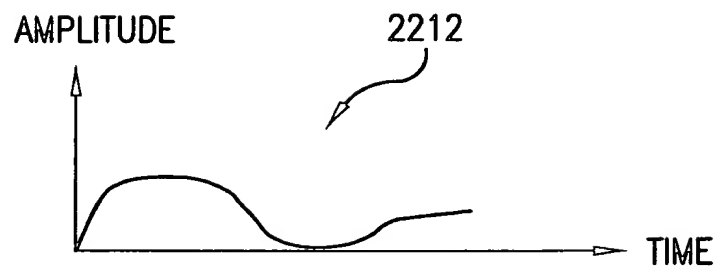


FIG. 24J

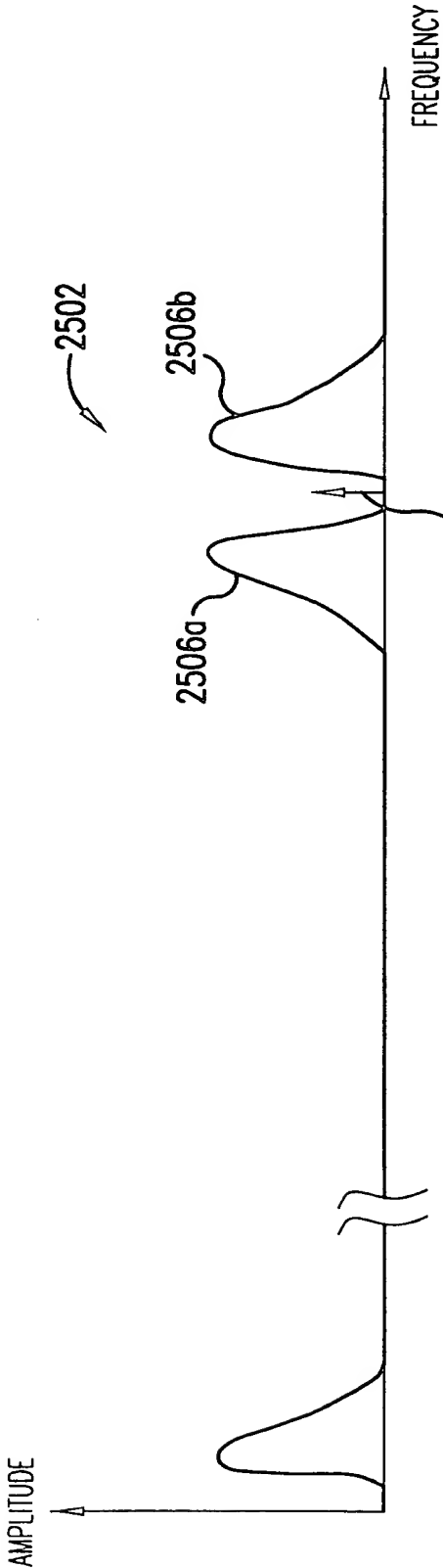


FIG. 25A

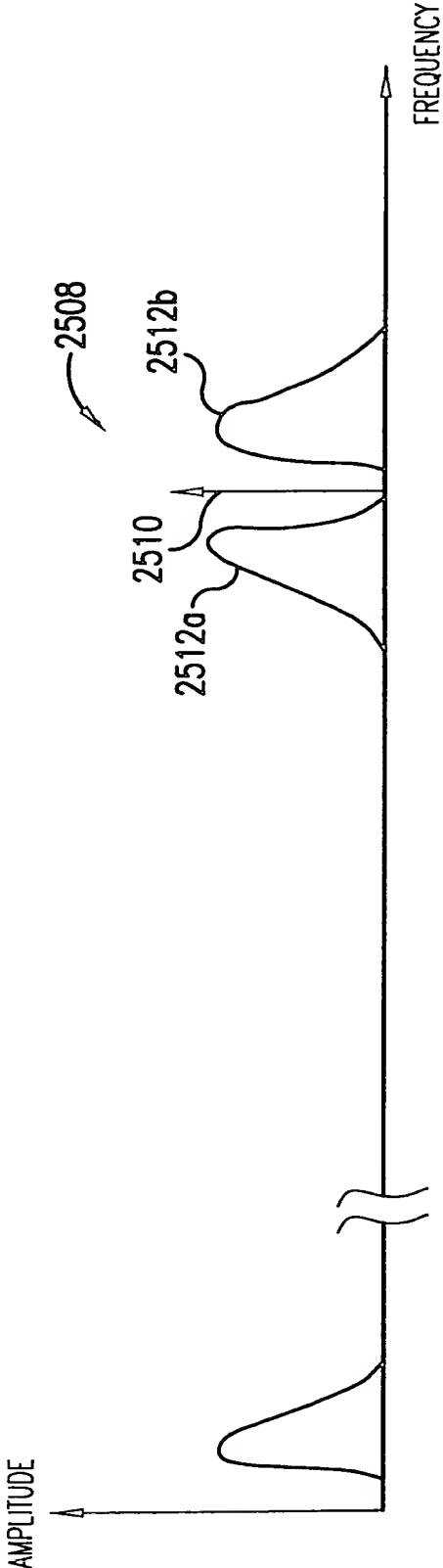


FIG. 25B

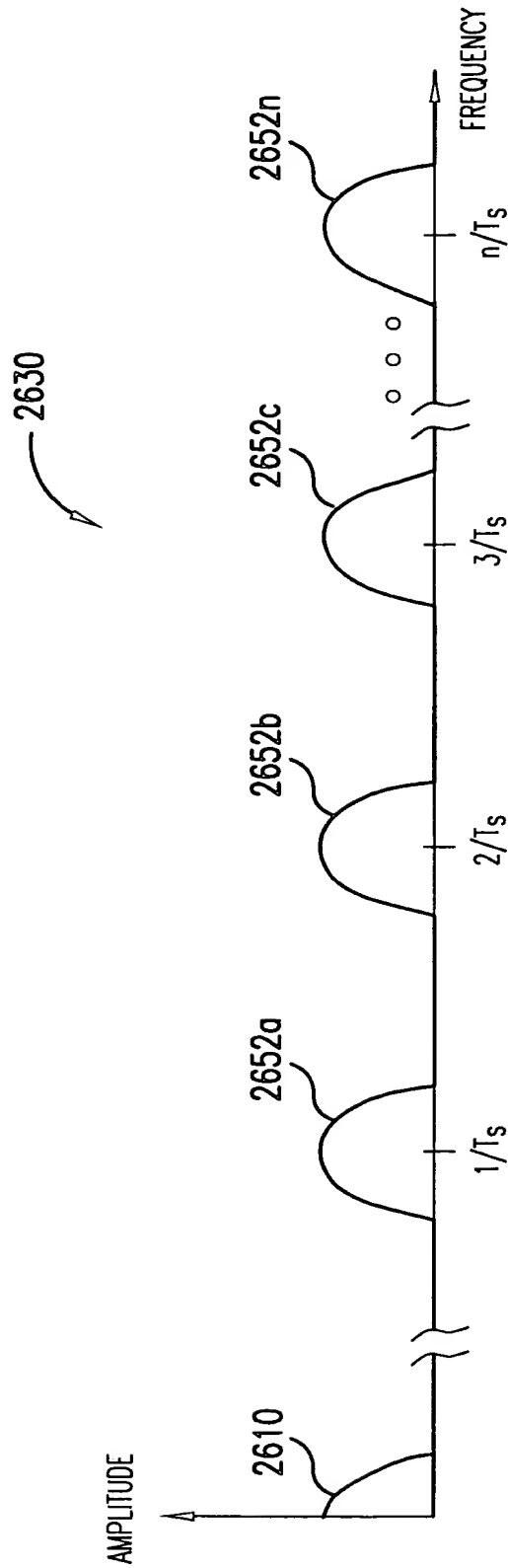


FIG. 26B

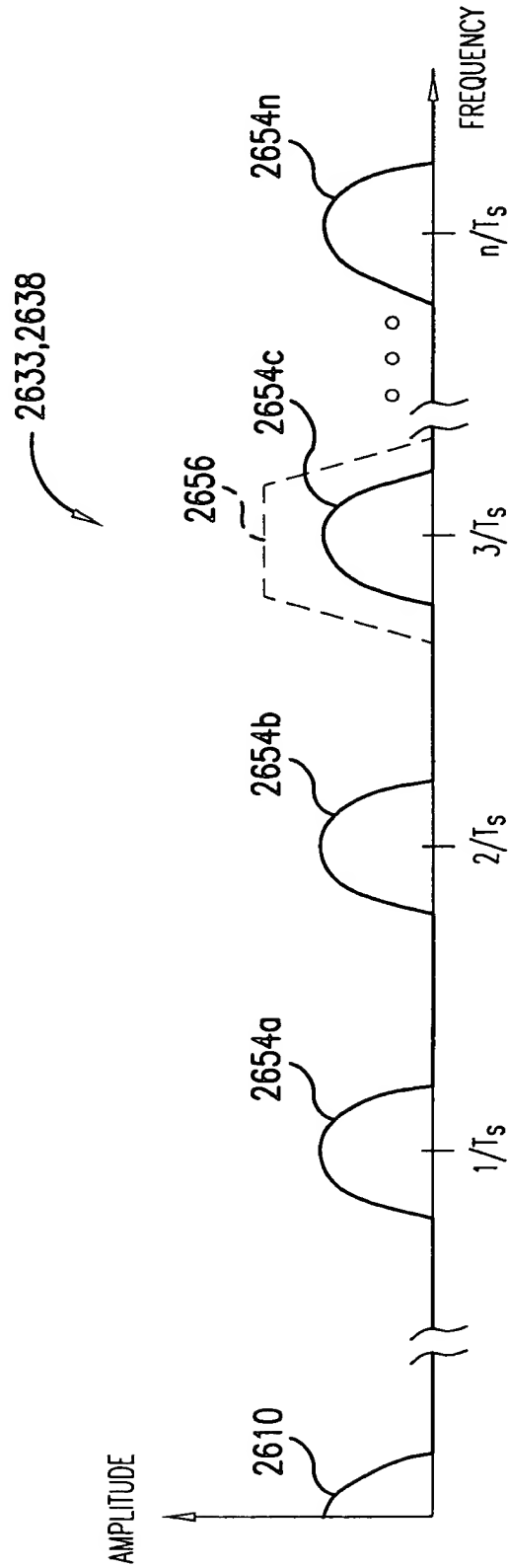
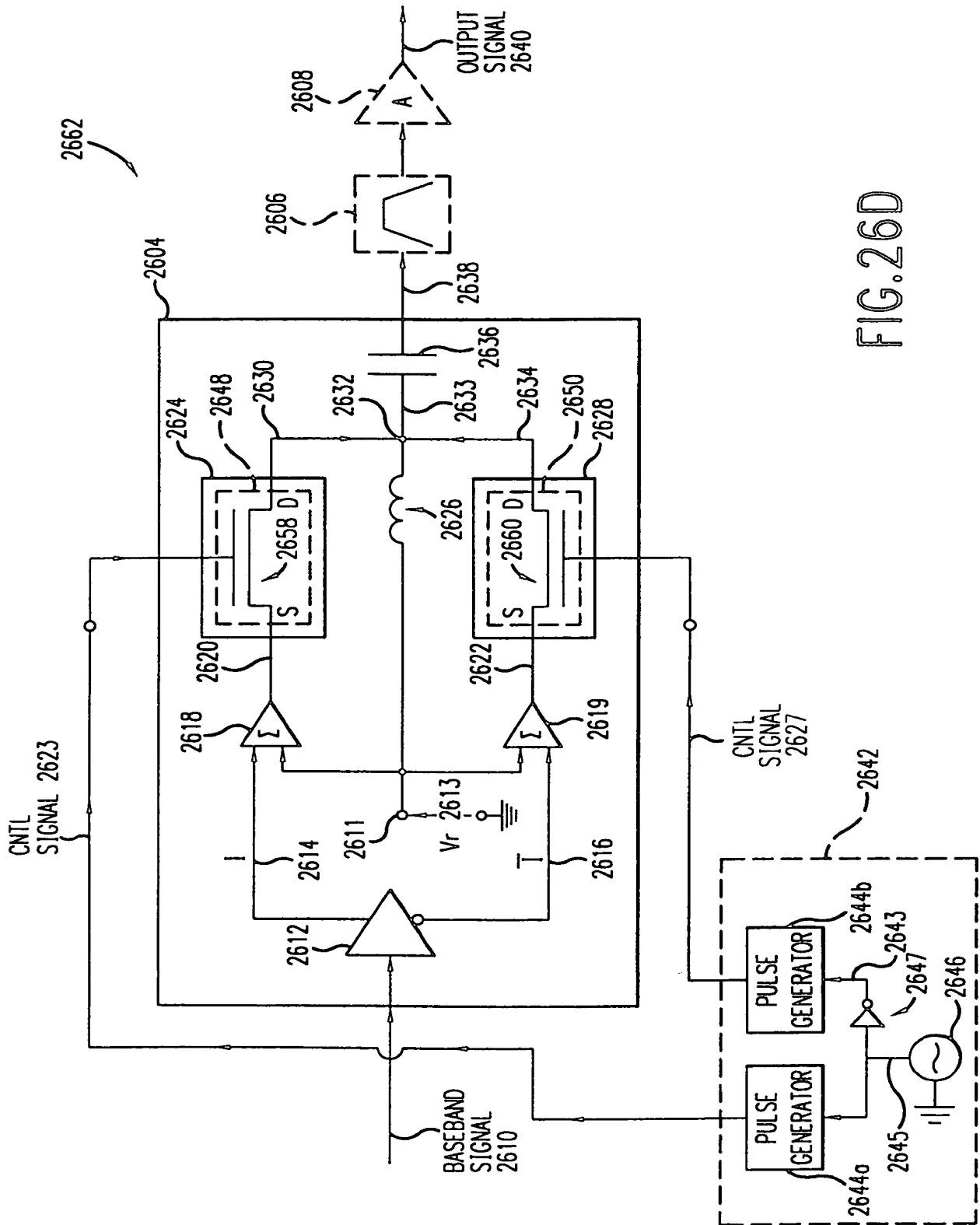
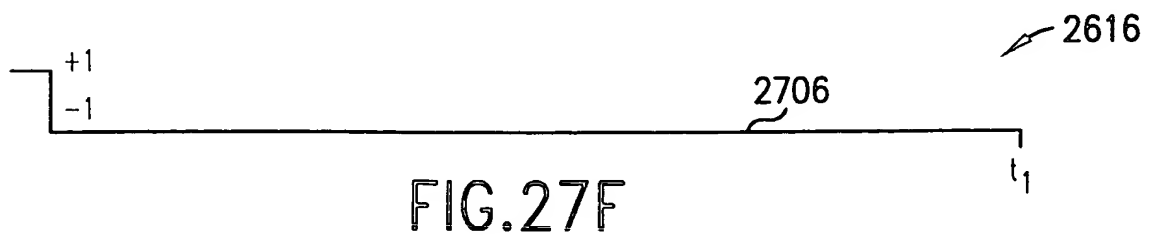
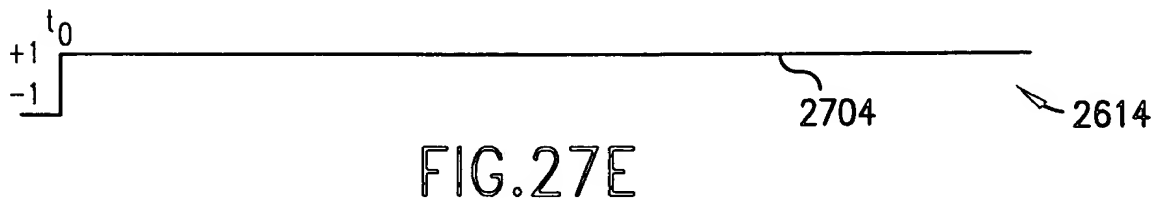
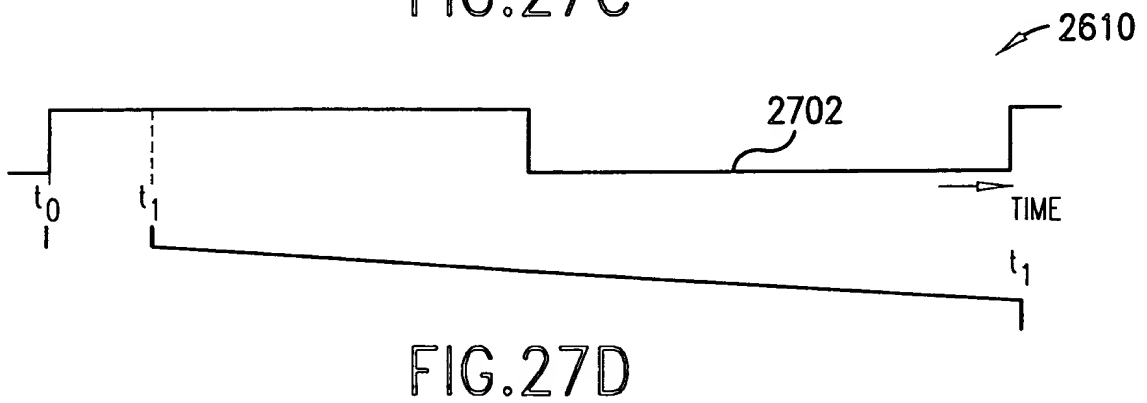
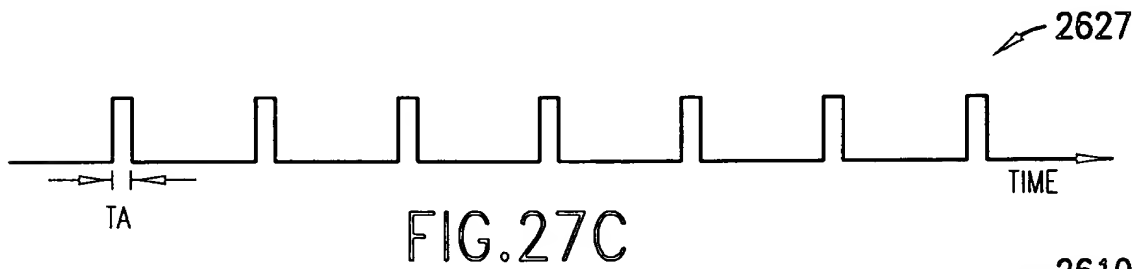
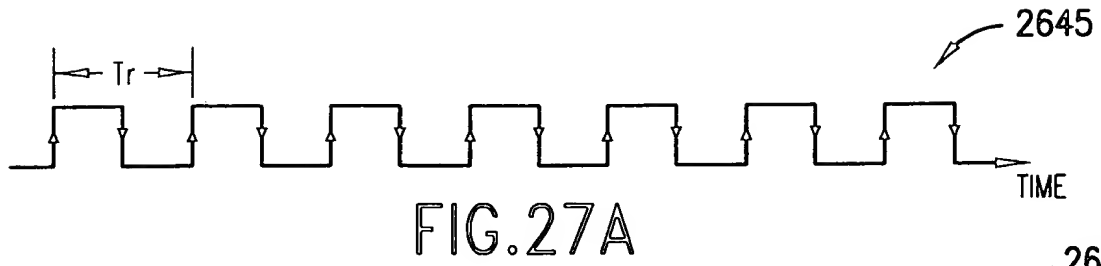
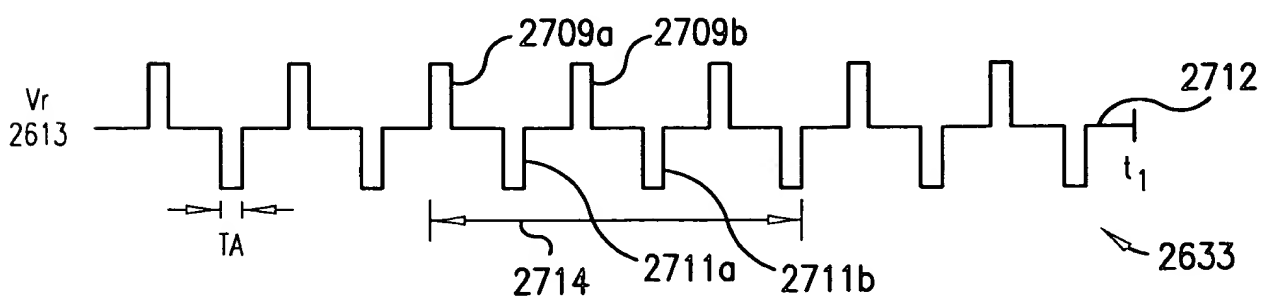
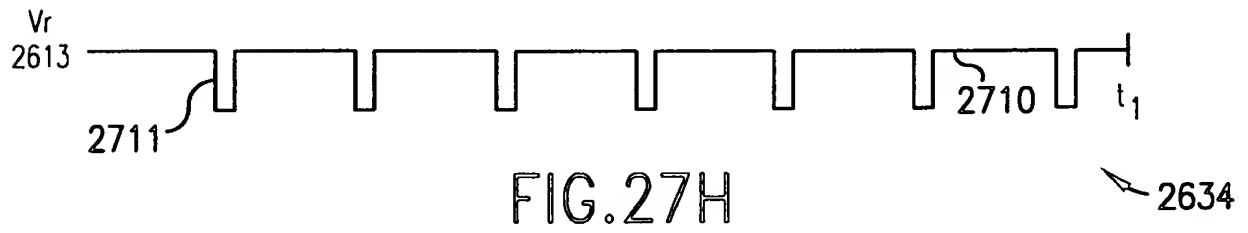
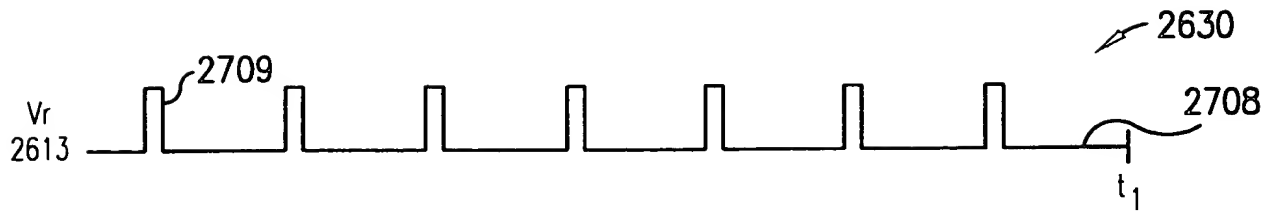


FIG. 26C







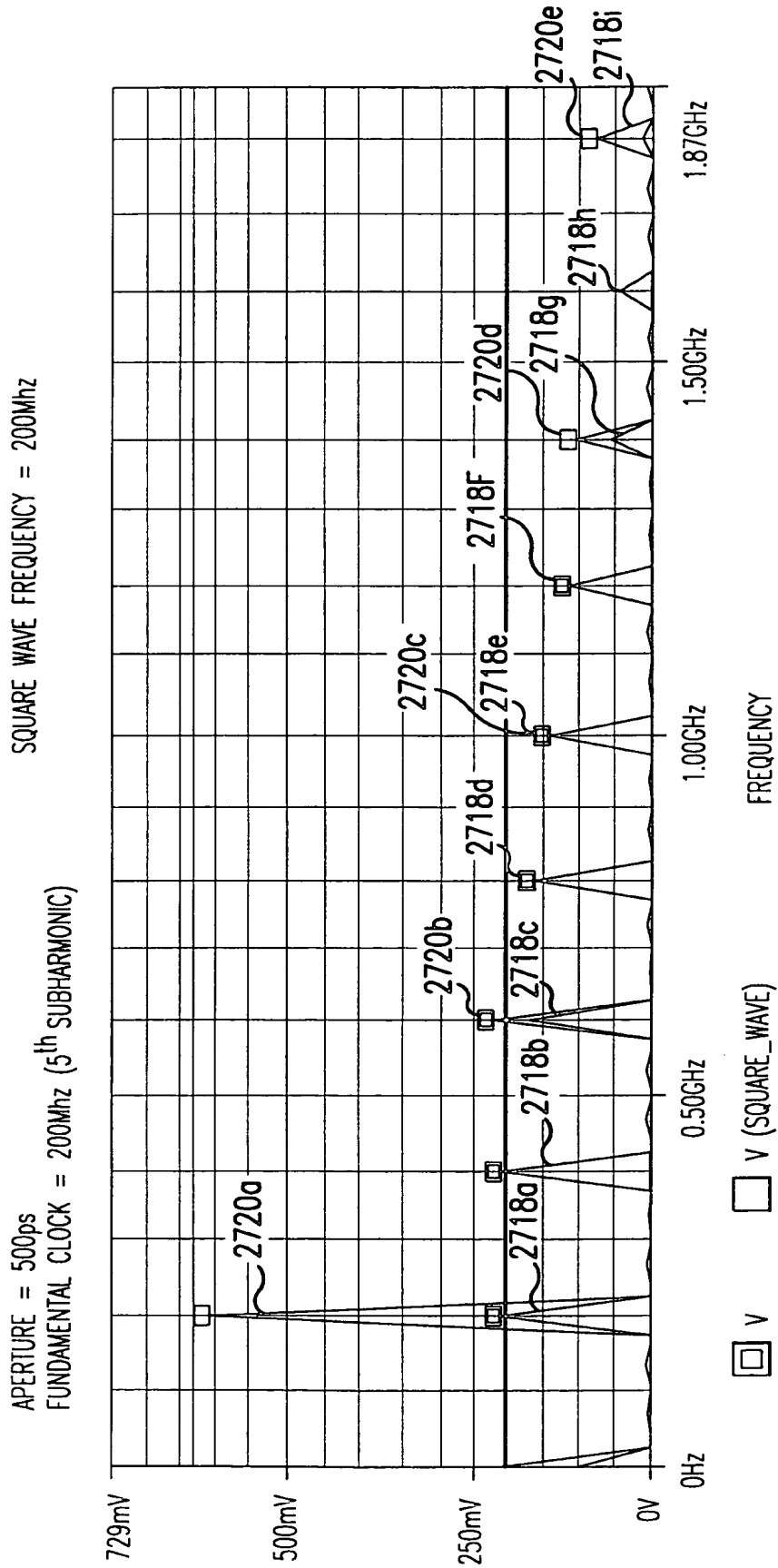
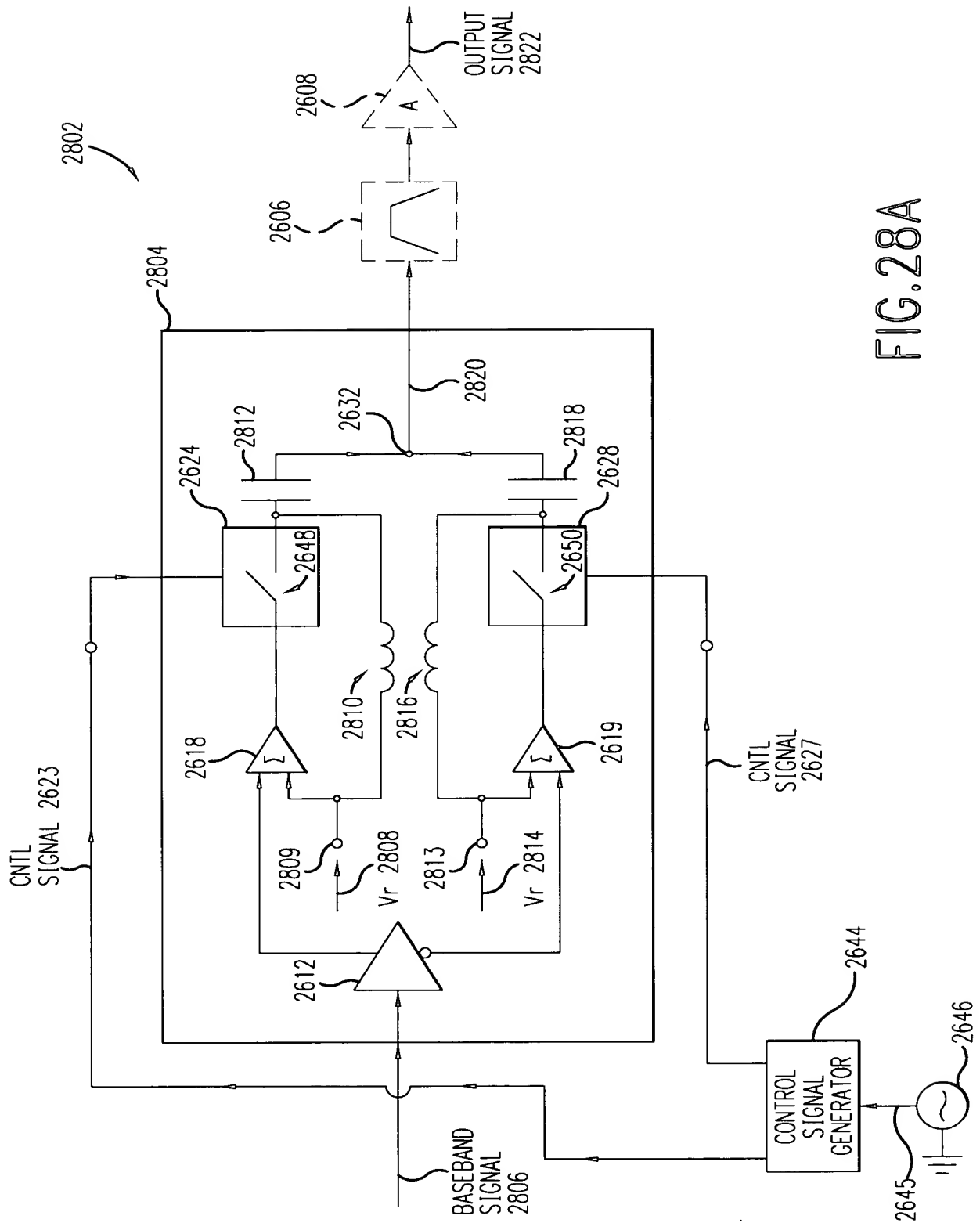


FIG.27J



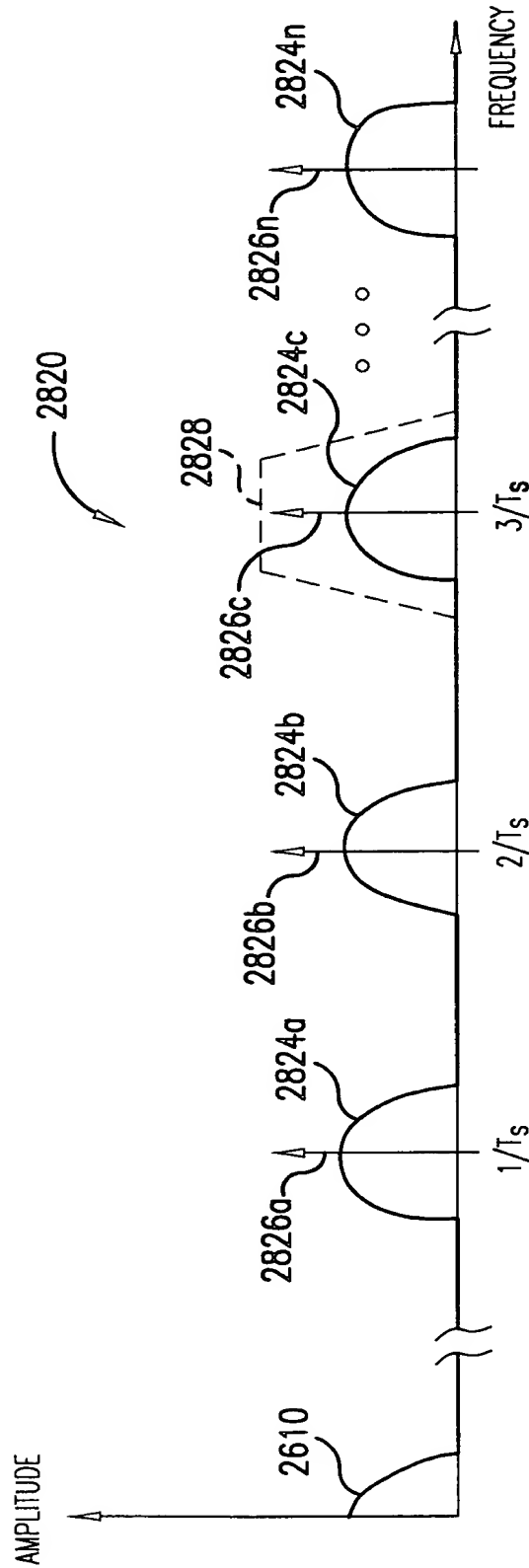


FIG. 28B

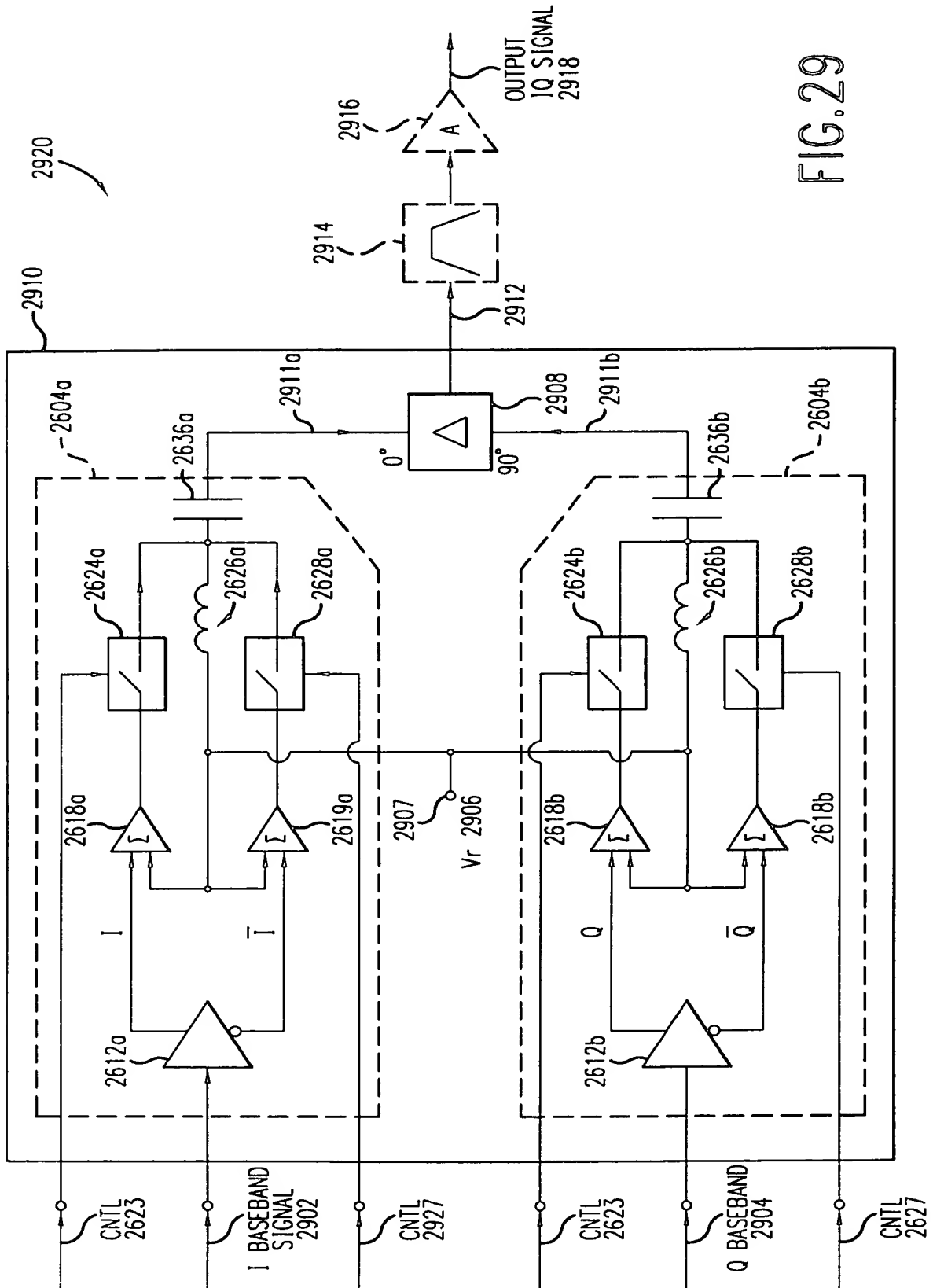


FIG. 29

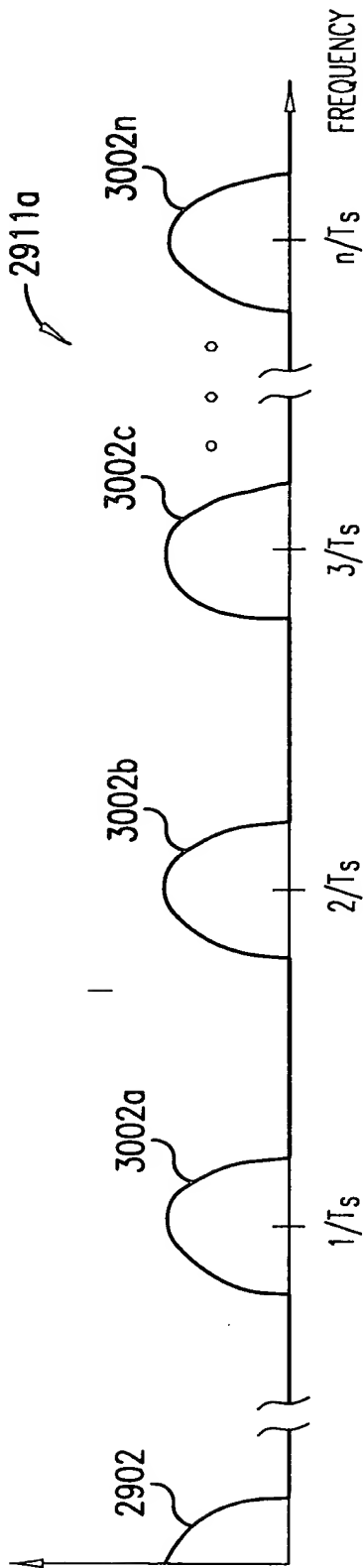


FIG. 30A

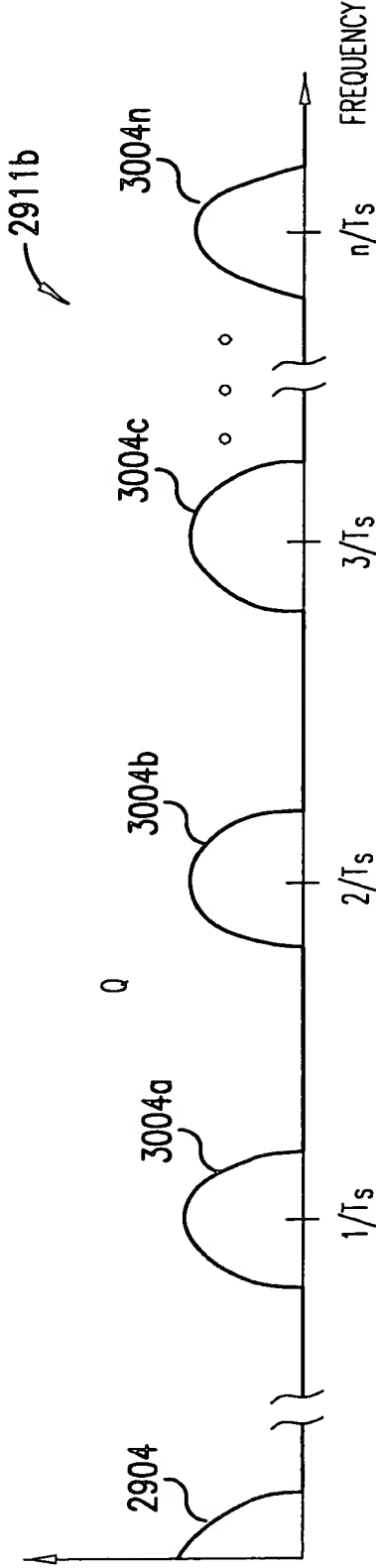


FIG. 30B

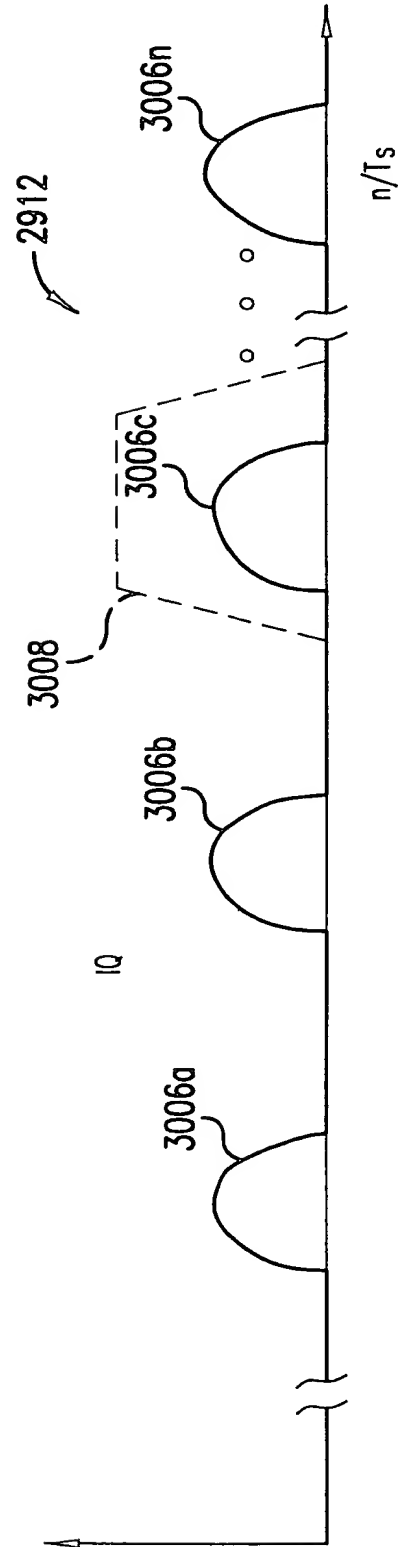
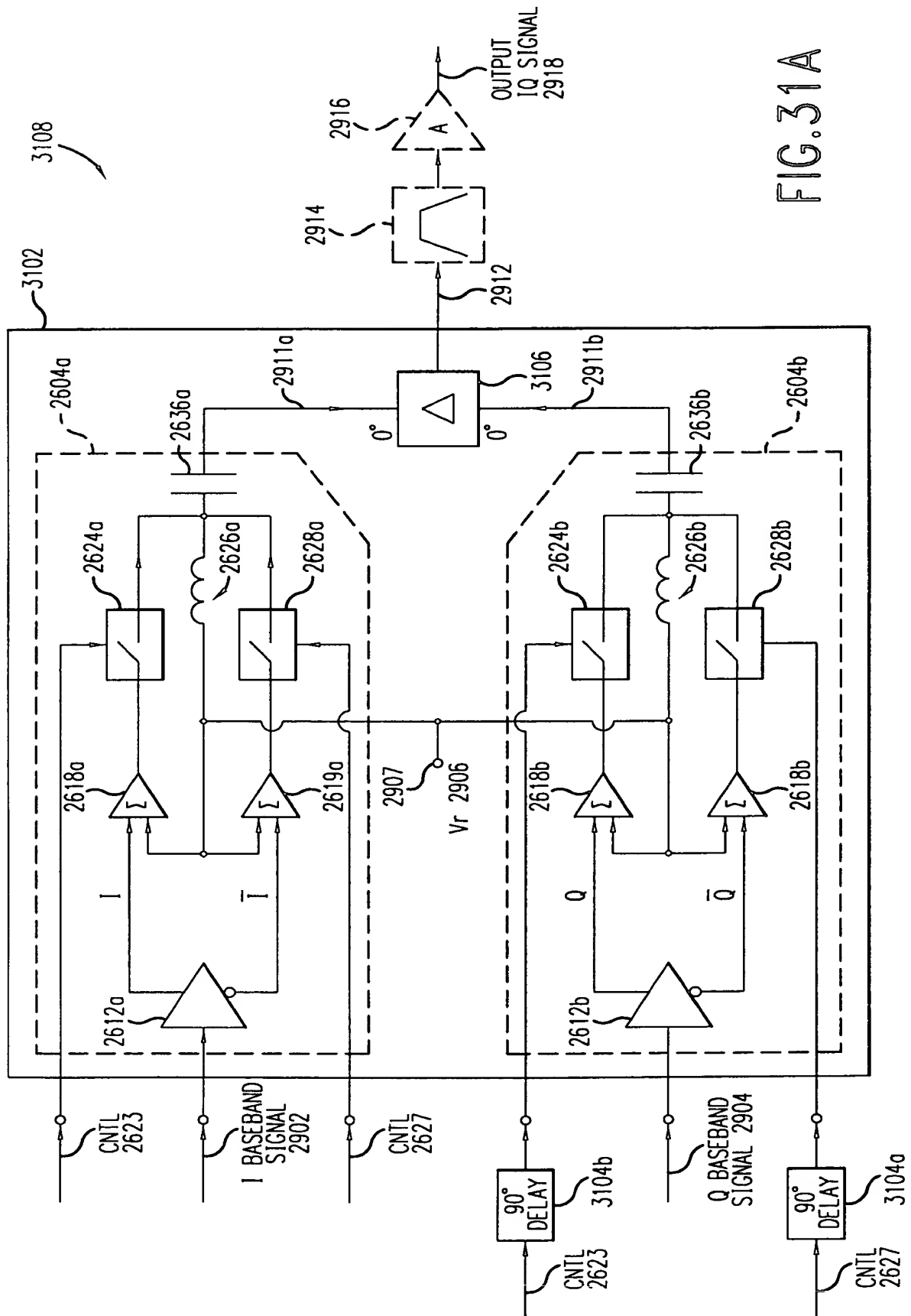
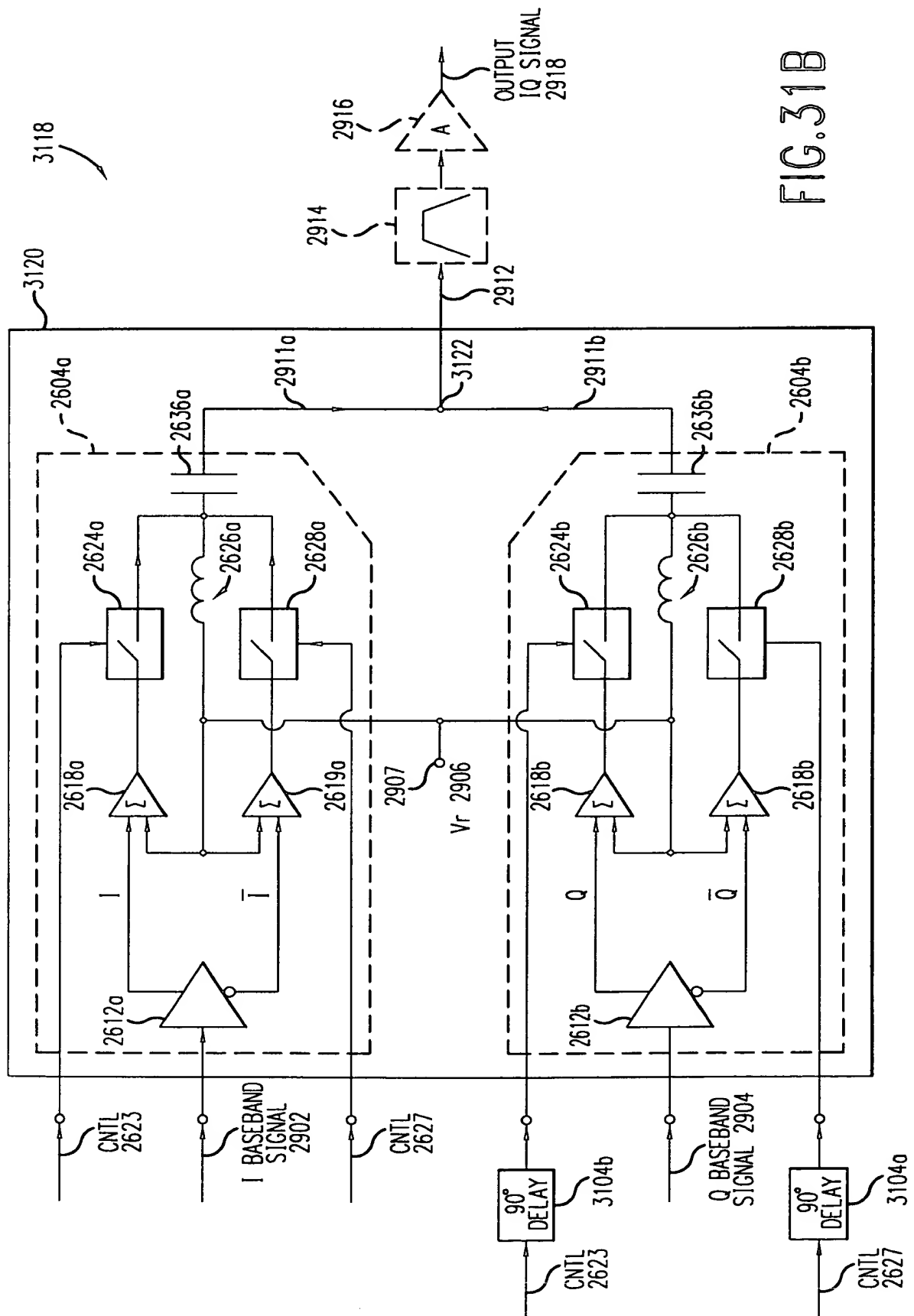
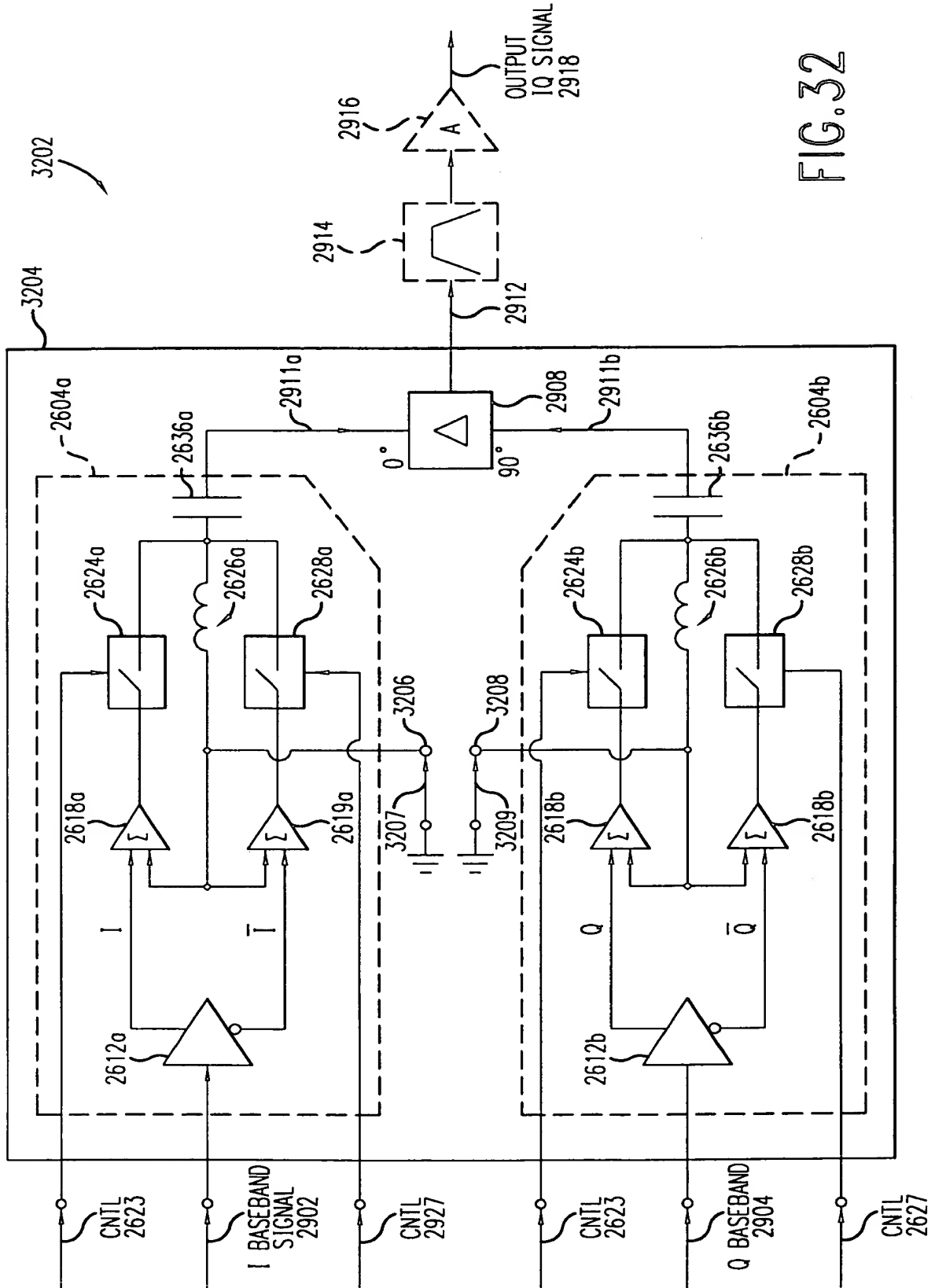


FIG. 30C



For: Method, System and Apparatus for Balanced Frequency Up-Conversion of a Baseband Signal and 4-Phase Receiver and Transceiver





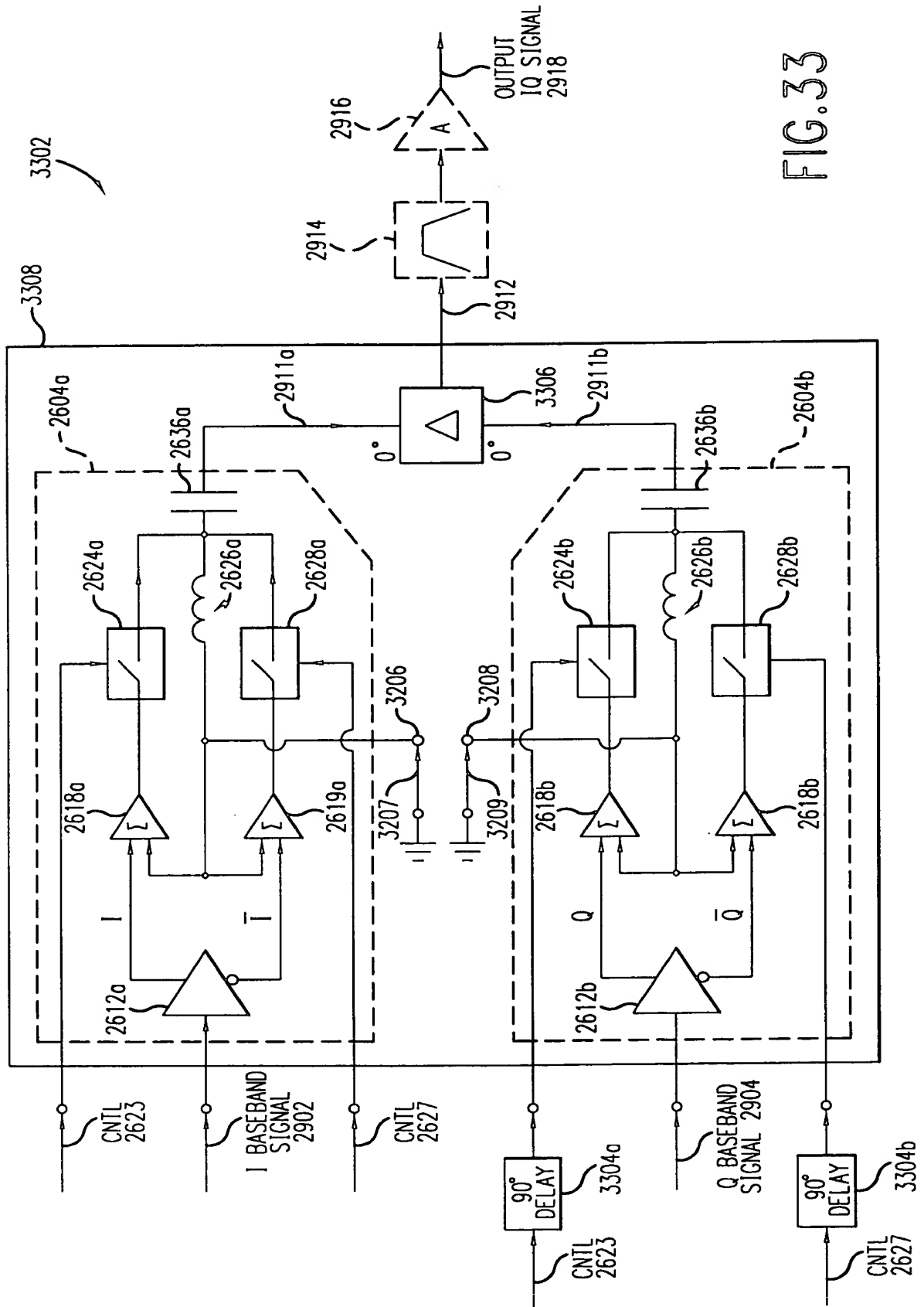
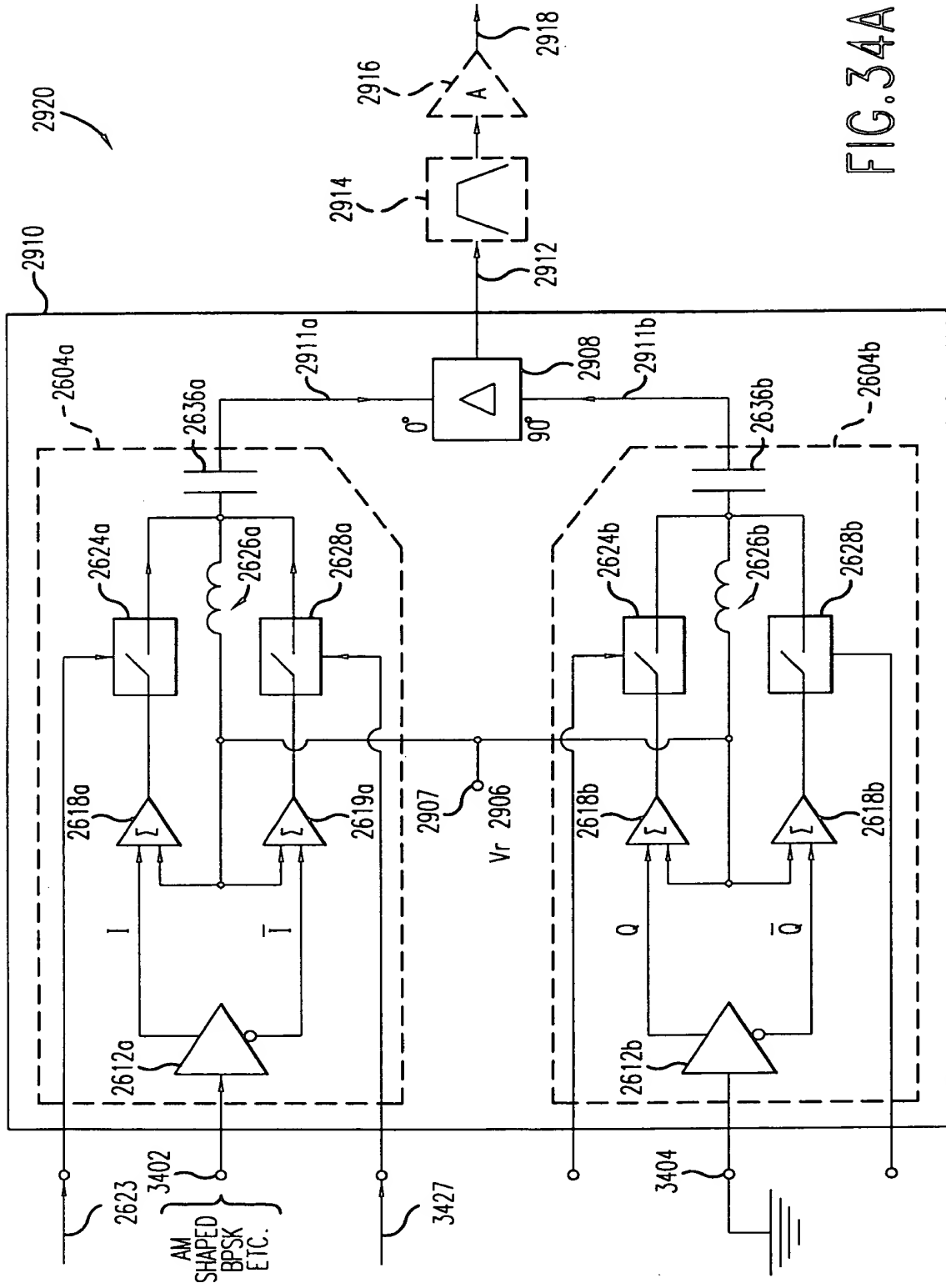


FIG. 33



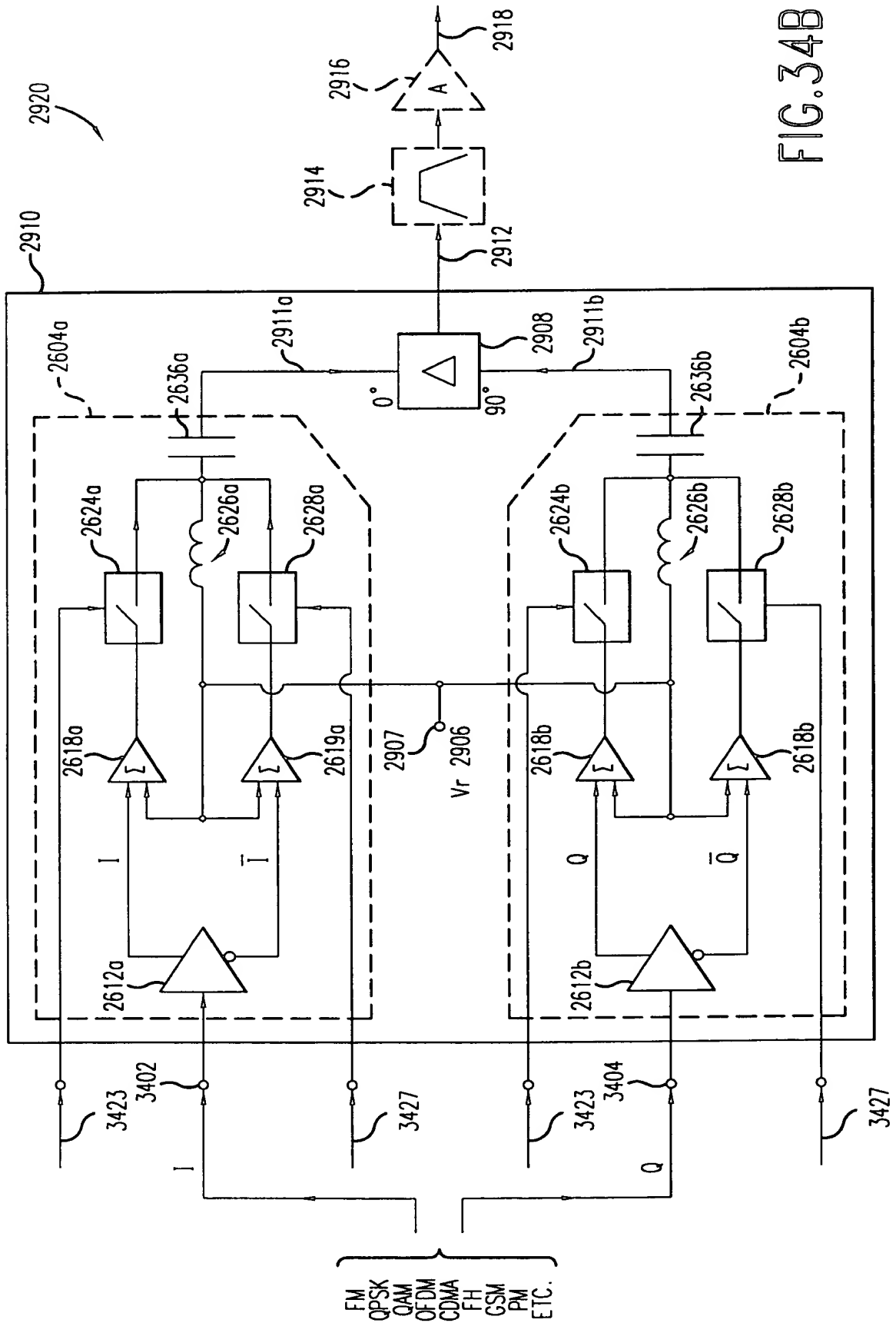


FIG. 348B

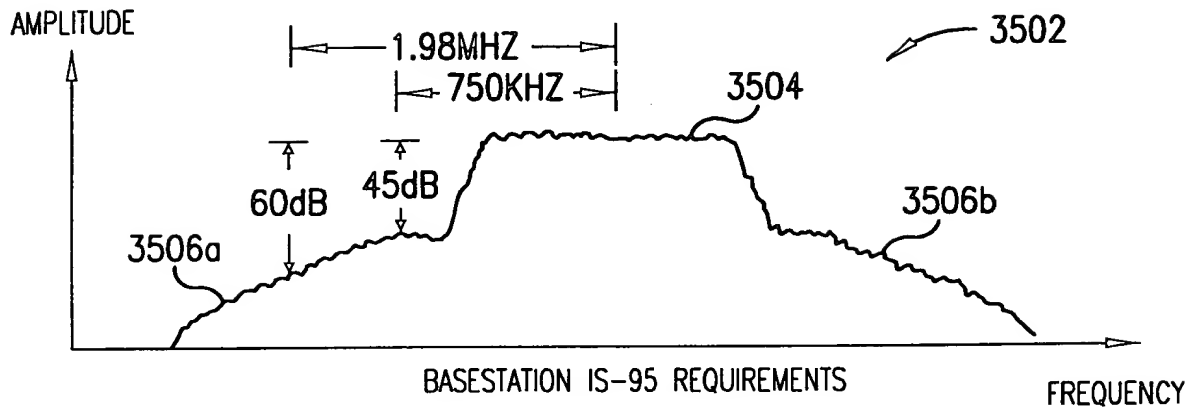


FIG.35A

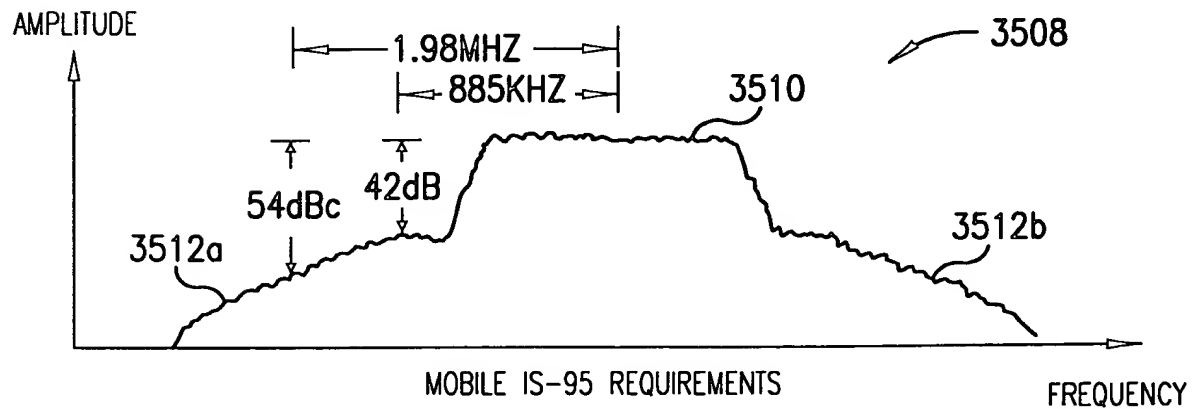
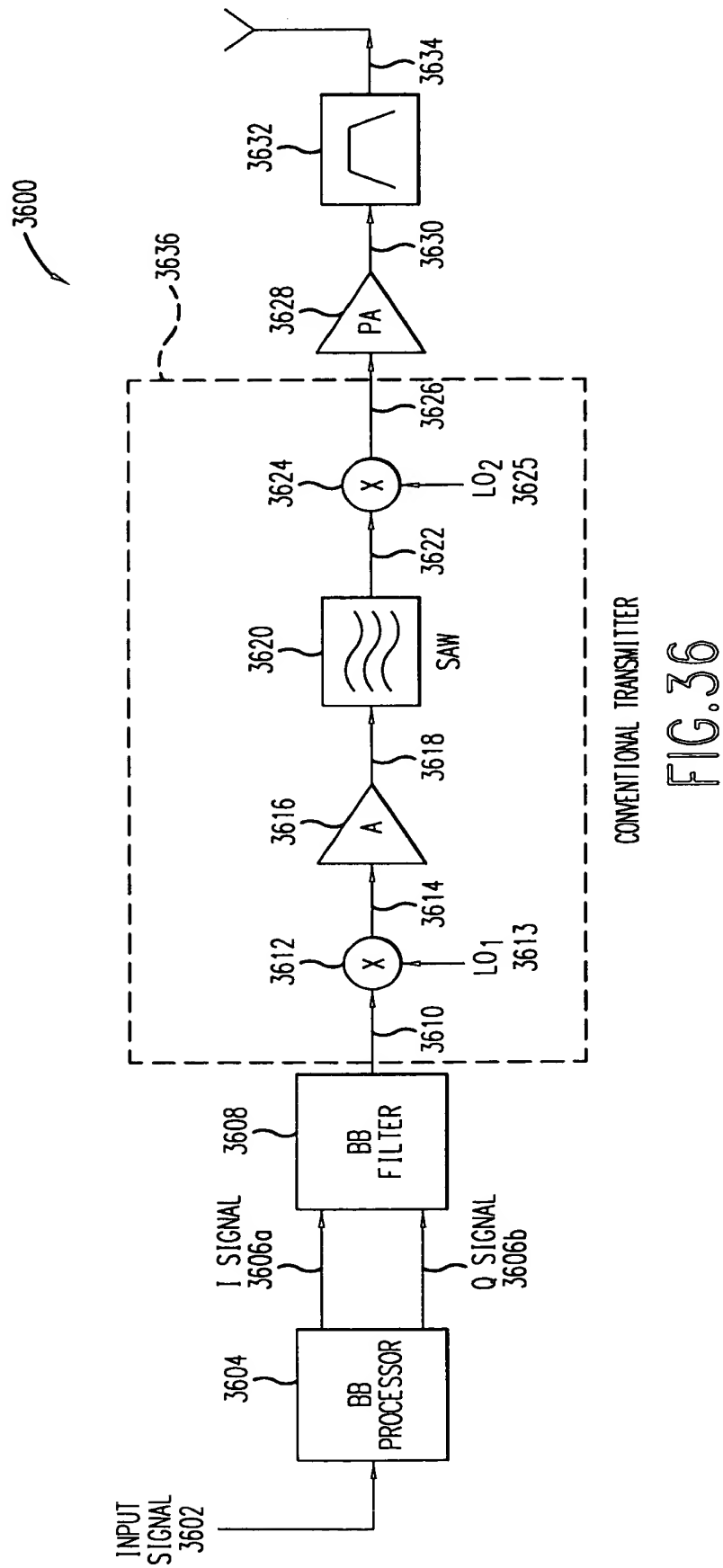


FIG.35B



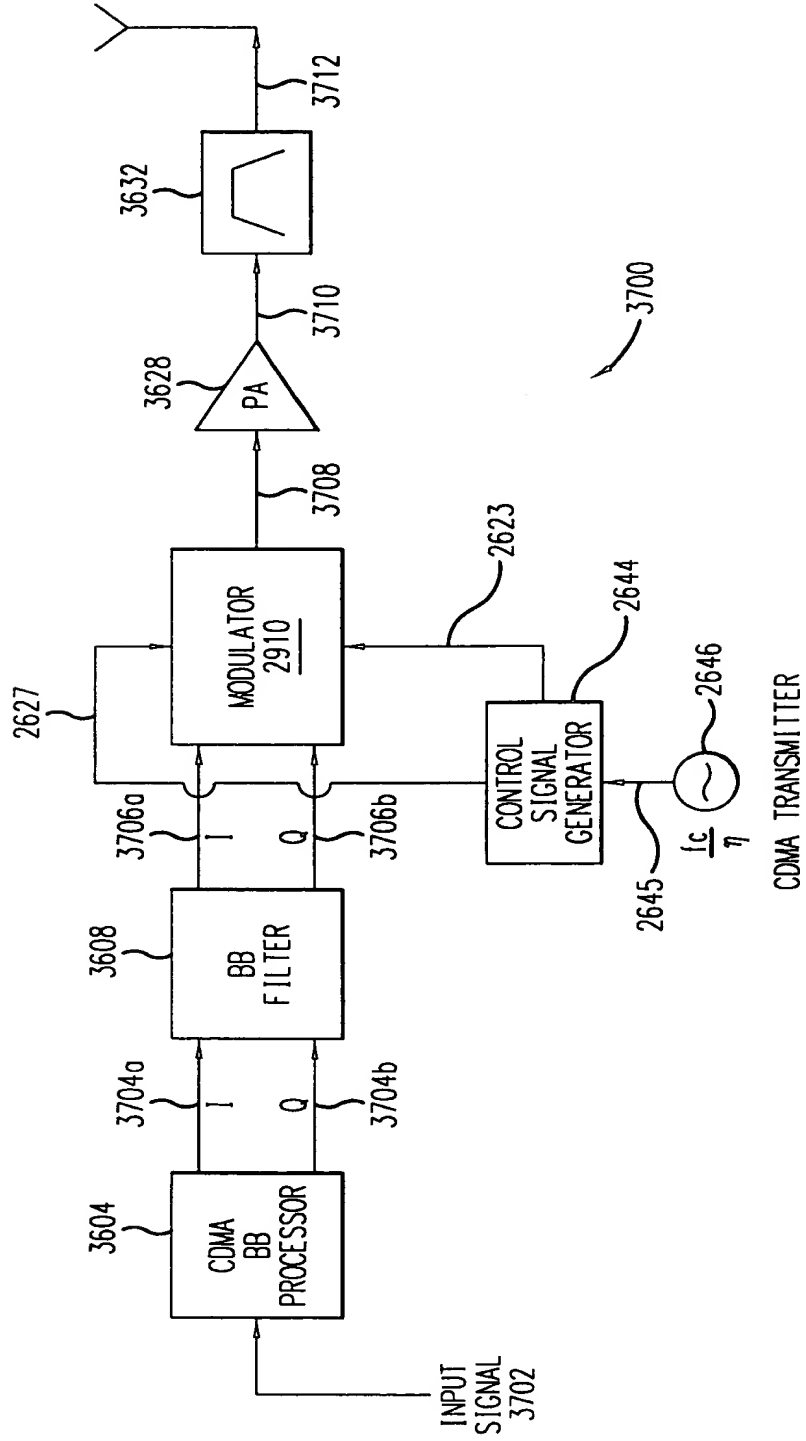


FIG. 37A

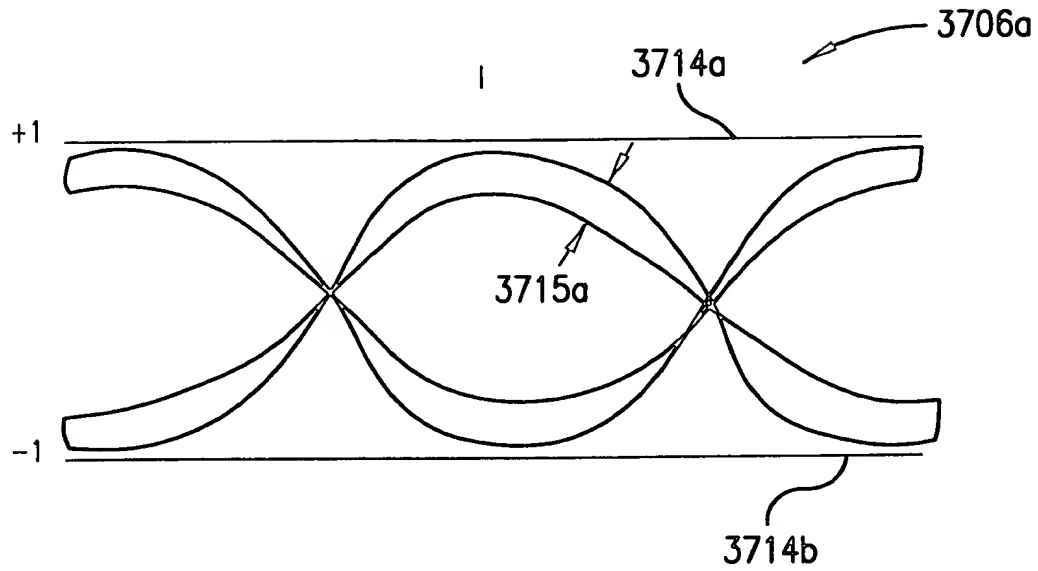


FIG. 37B

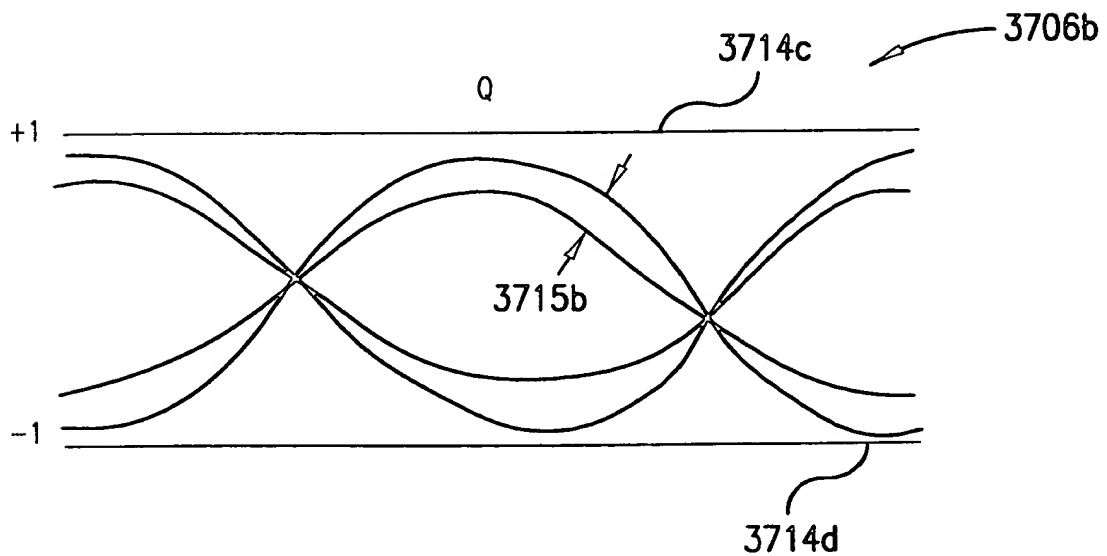


FIG. 37C

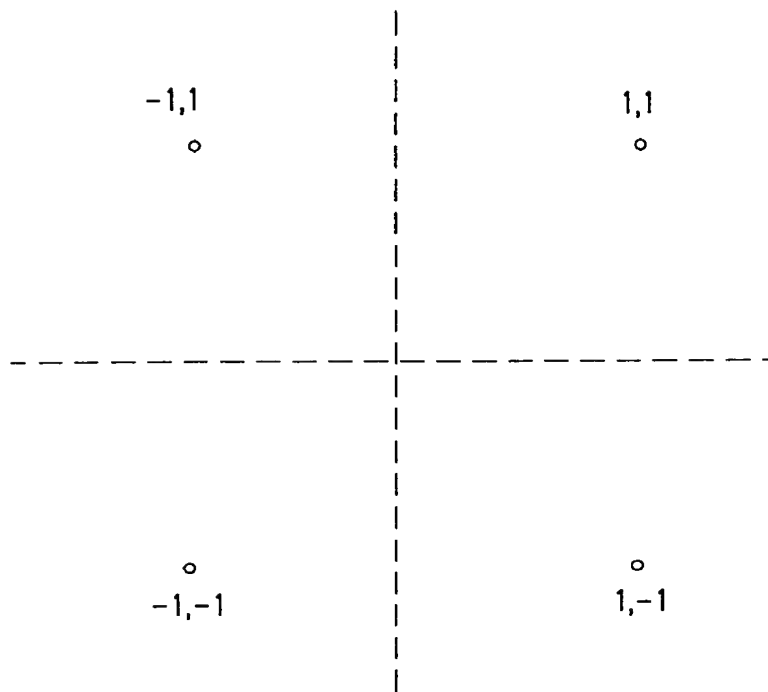


FIG.37D

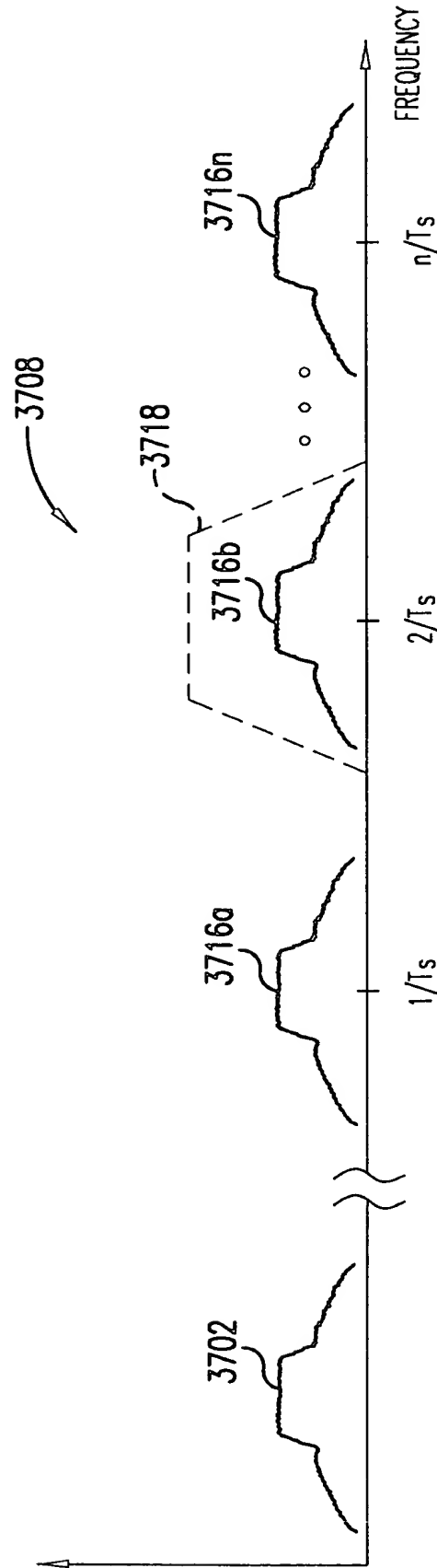
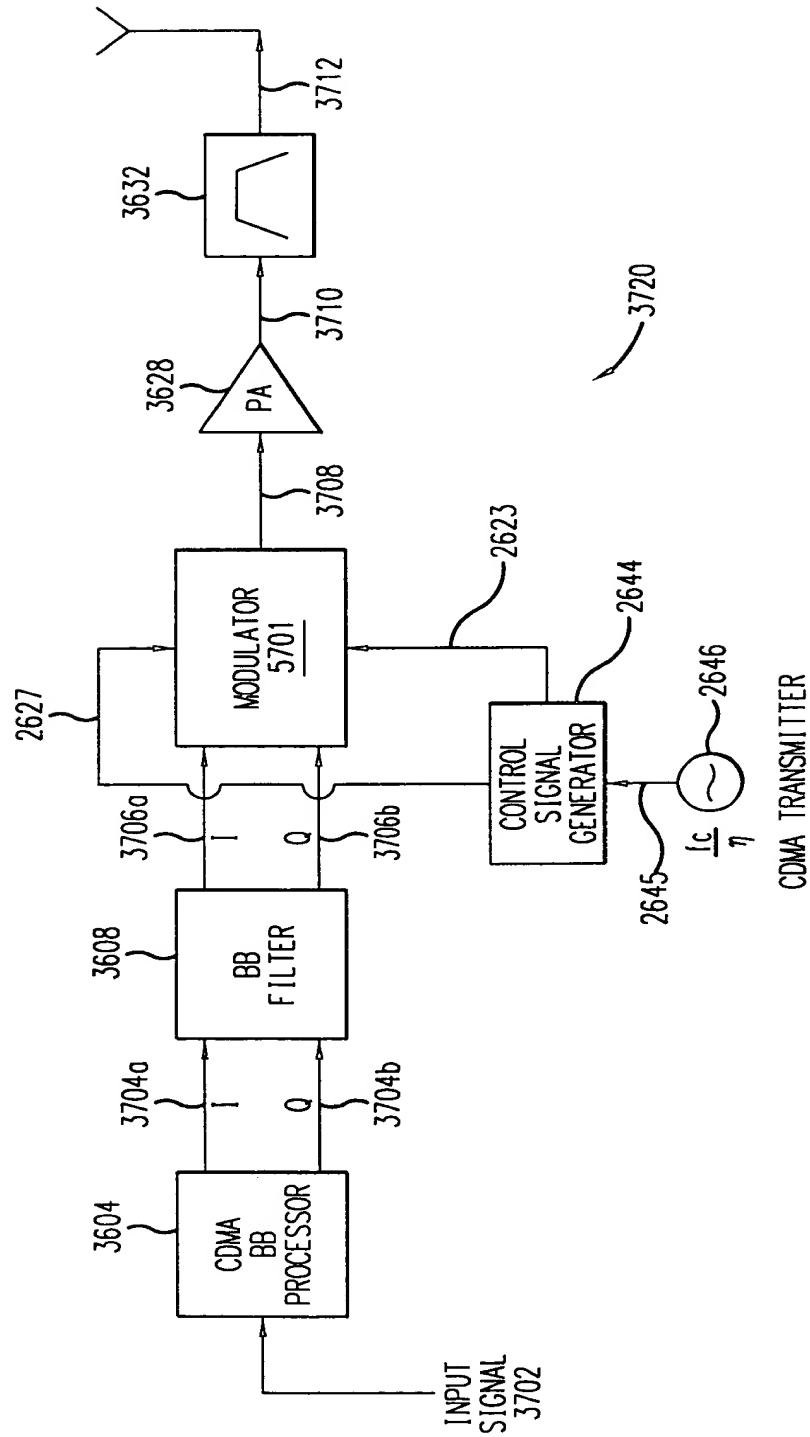
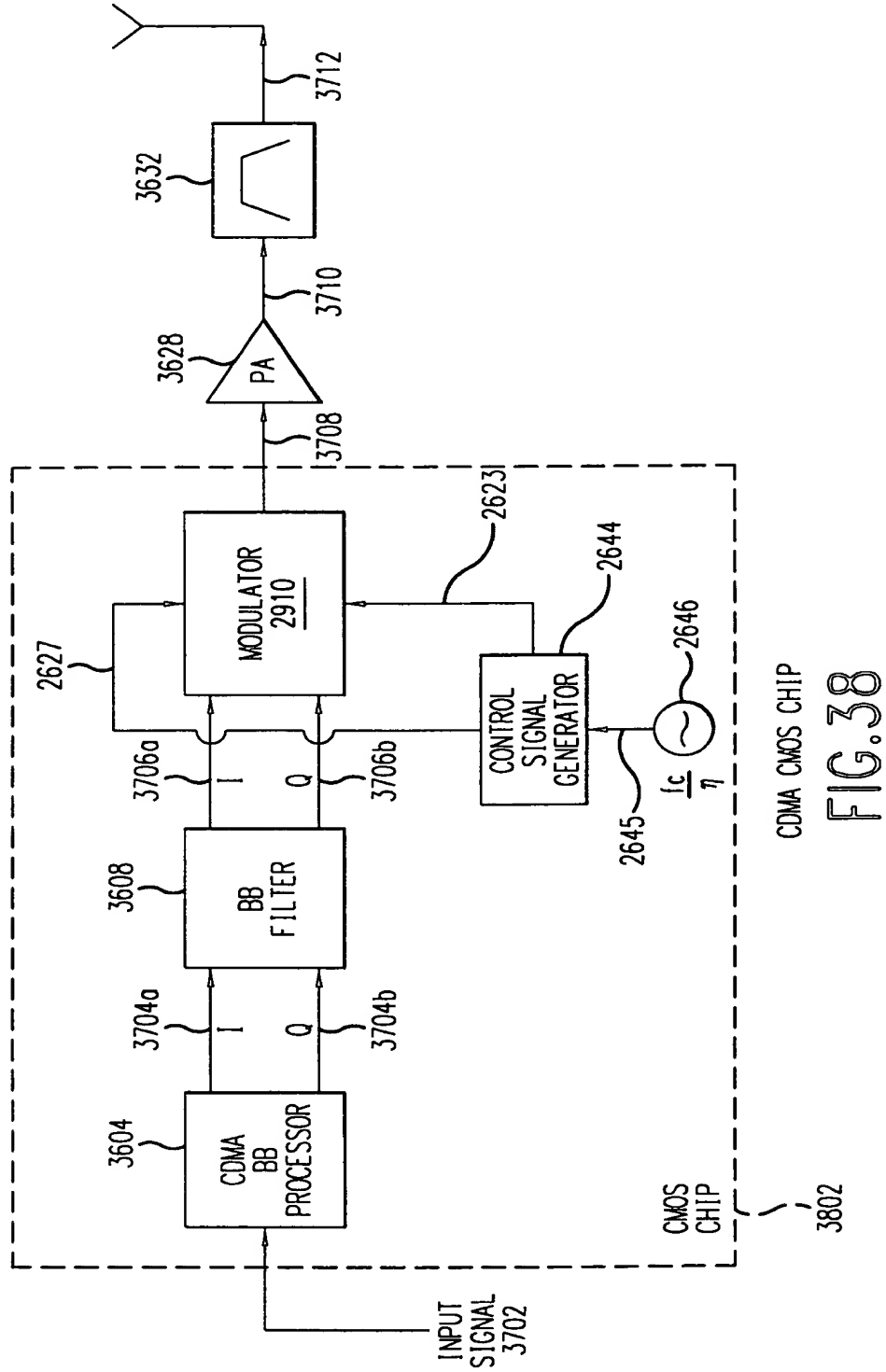


FIG. 37E





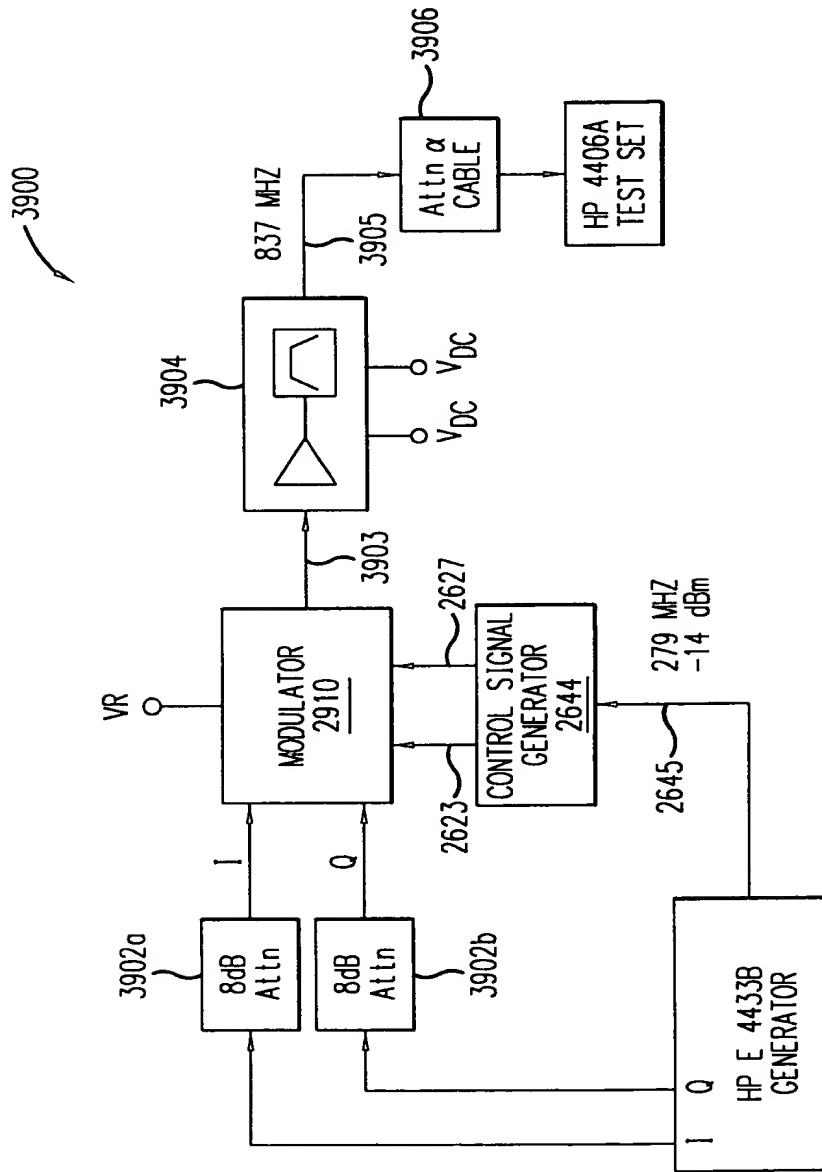


FIG.39

4002

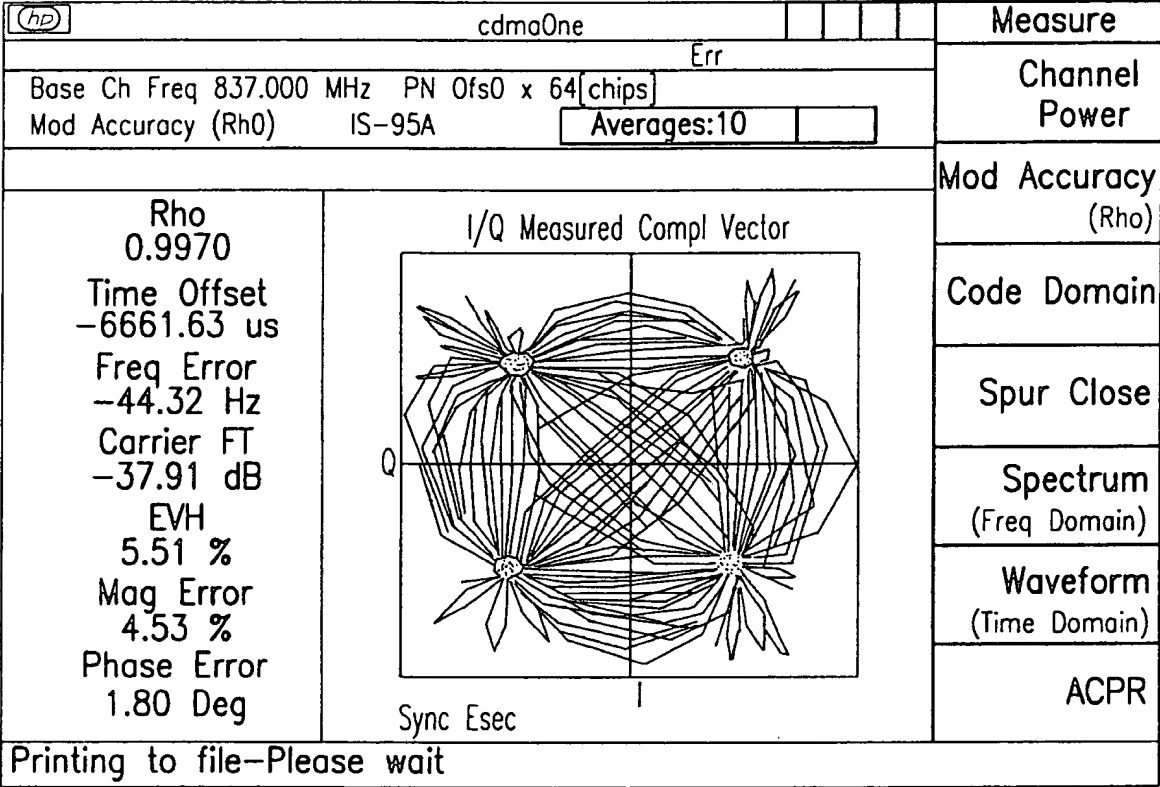
BASE STATION	
RHO	0.9970
EVM	5.51%
PHASE ERROR	1.80°
MAGNITUDE ERROR	4.53%
CARRIER INSERTION	-37.91 dB
PA POWER OUT	28.06 dBm

FIG.40

FREQUENCY (MHz) (MOBILE STATION)			
	LOW	MIDDLE	HIGH
RHO	0.9892	0.9969	0.9892
EVM	10.39%	5.54%	10.39%
PHASE ERROR	4.47°	2.24°	4.08°
MAGNITUDE ERROR	6.84%	4.21%	8.27%
CARRIER INSERTION	-40.15 dB	-44.58 dB	-35.27 dB
PA POWER OUT	27.36 dBm	28.11 dBm	27.55 dBm

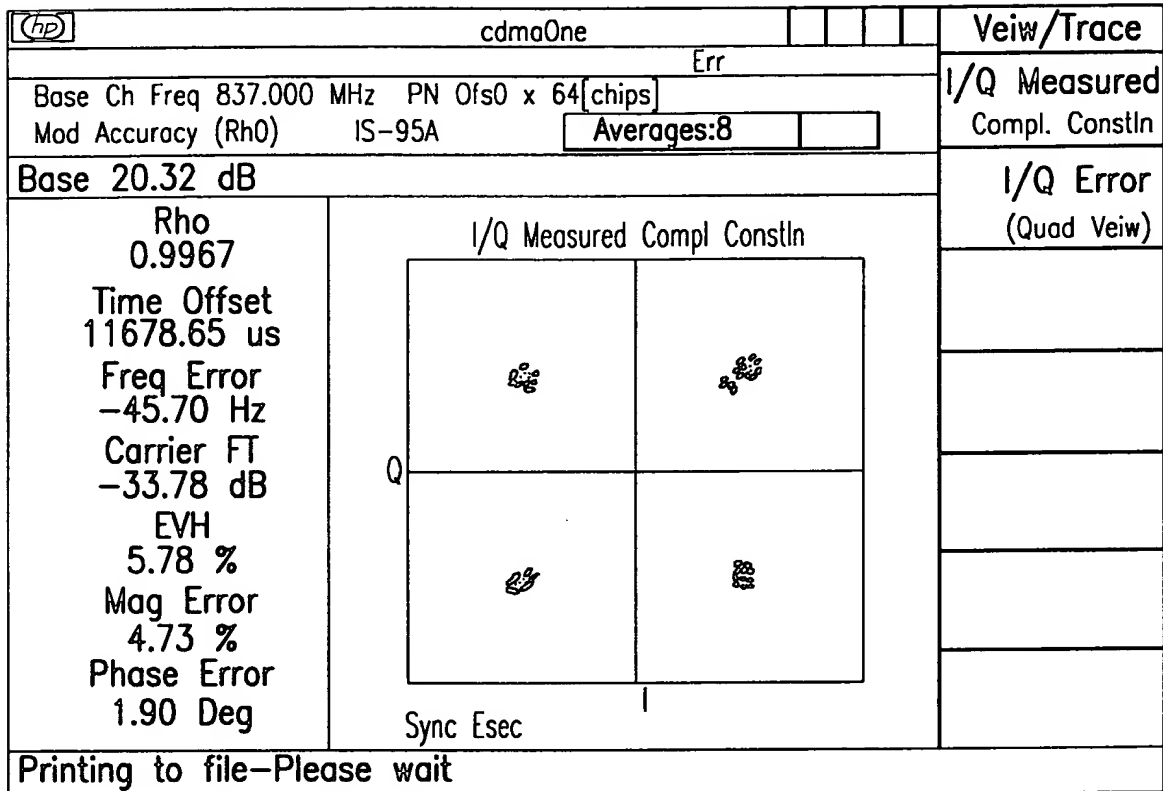
4102

FIG.41



BASE STATION CONSTELLATION FOR PILOT CHANNEL TEST

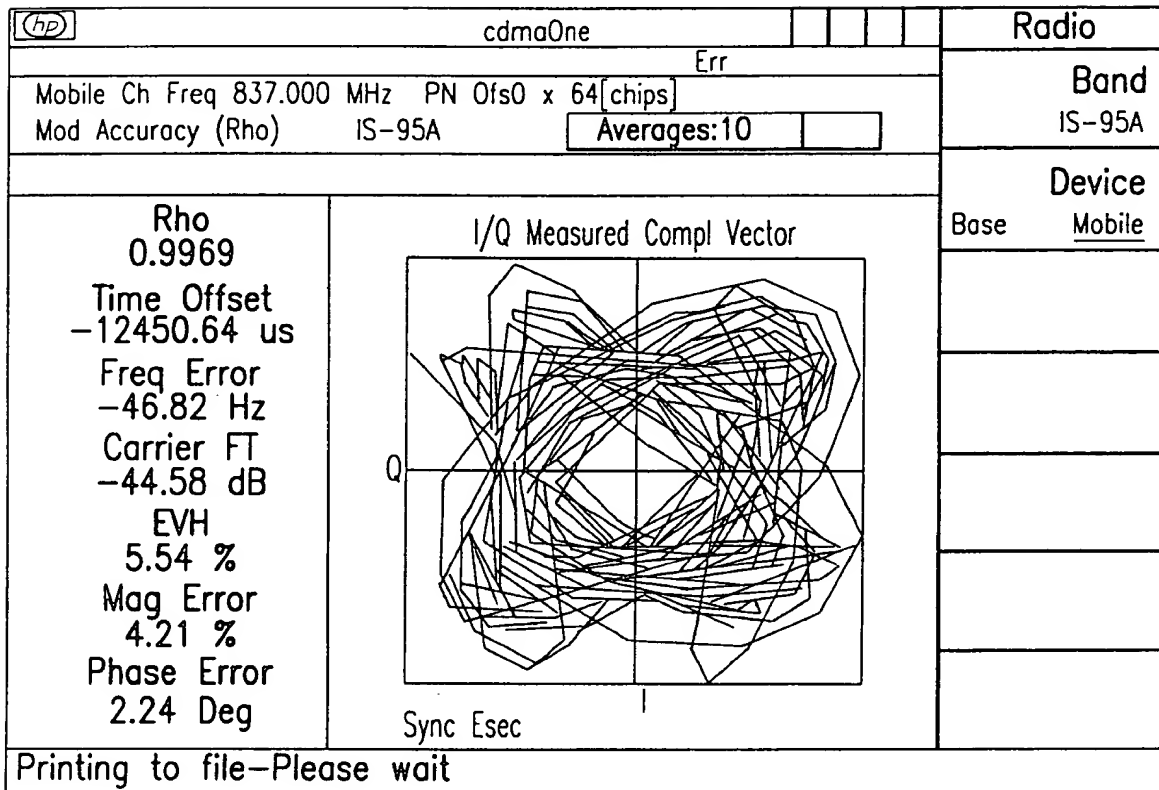
FIG.42



BASE STATION SAMPLED CONSTELLATION

FIG.43

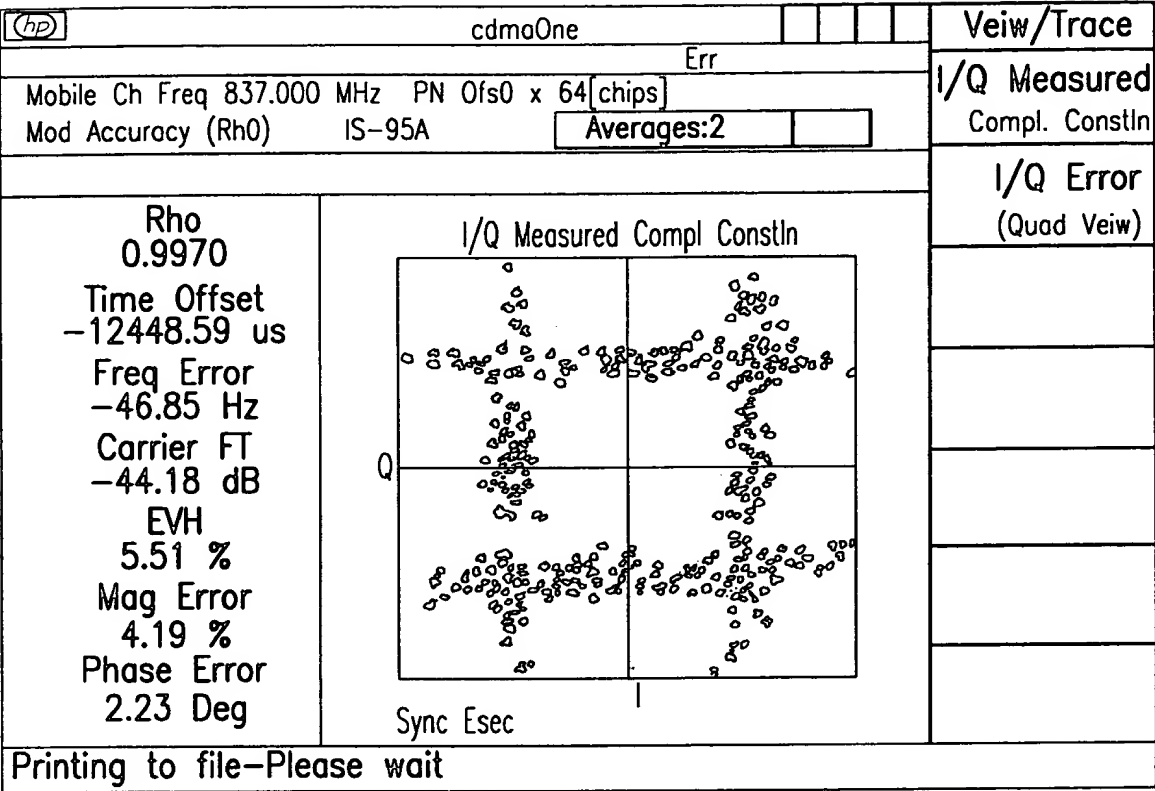
4302



MOBILE STATION CONSTELLATION FOR ACCESS CHANNEL TEST

FIG.44

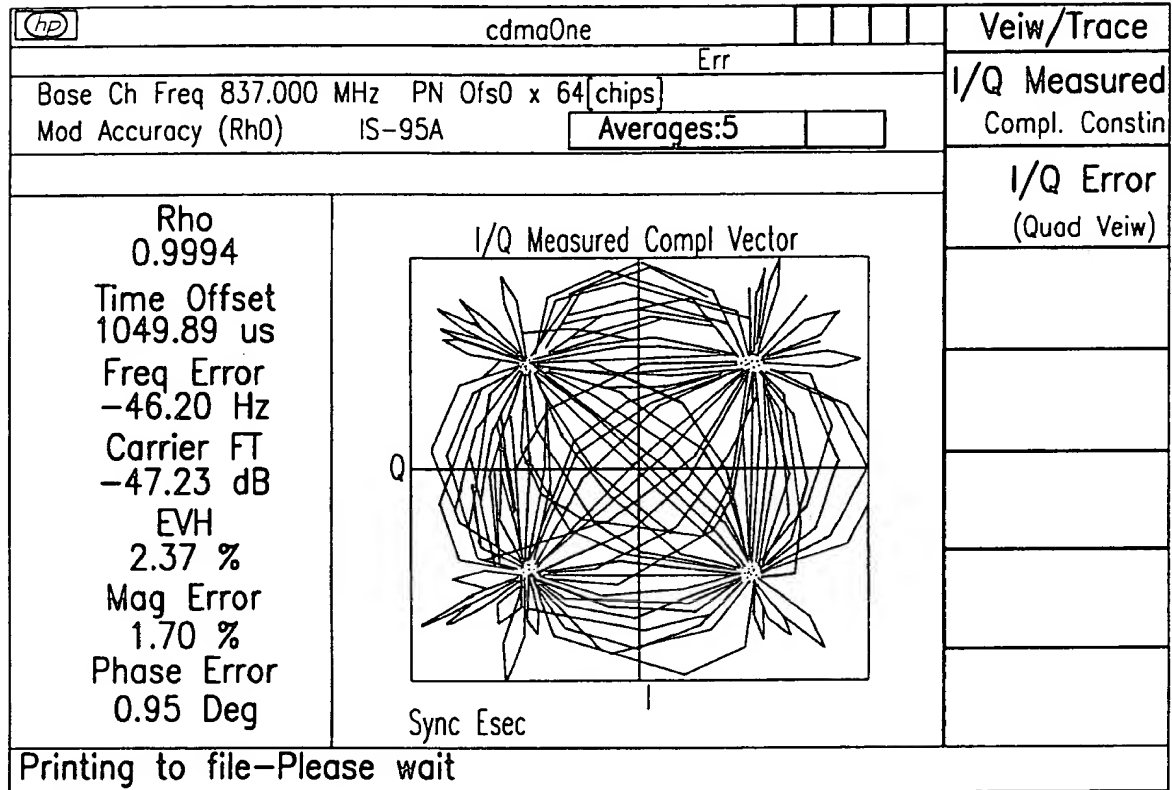
4402



MOBILE STATION SAMPLED CONSTELLATION

FIG.45

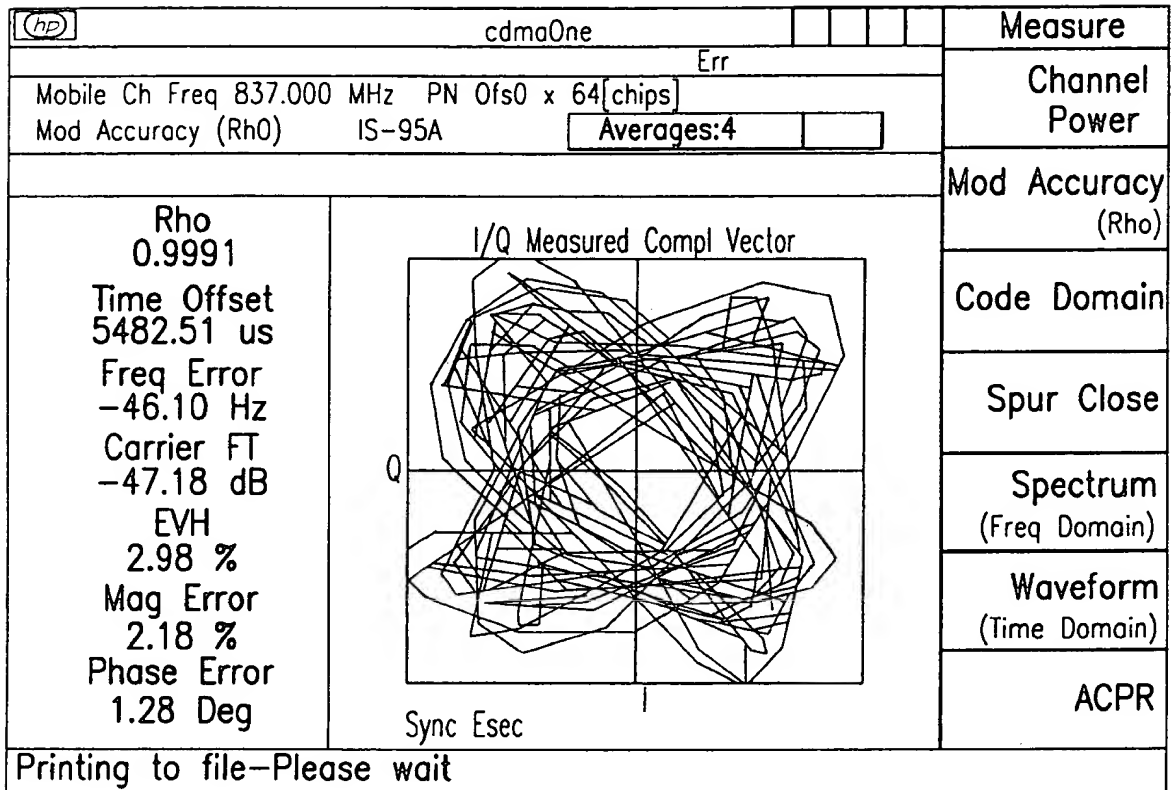
4502



BASE STATION CONSTELLATION USING
 ONLY H/P TEST EQUIPMENT

FIG.46

4602



MOBILE CONSTELLATION USING ONLY H/P TEST EQUIPMENT

FIG.47

4702

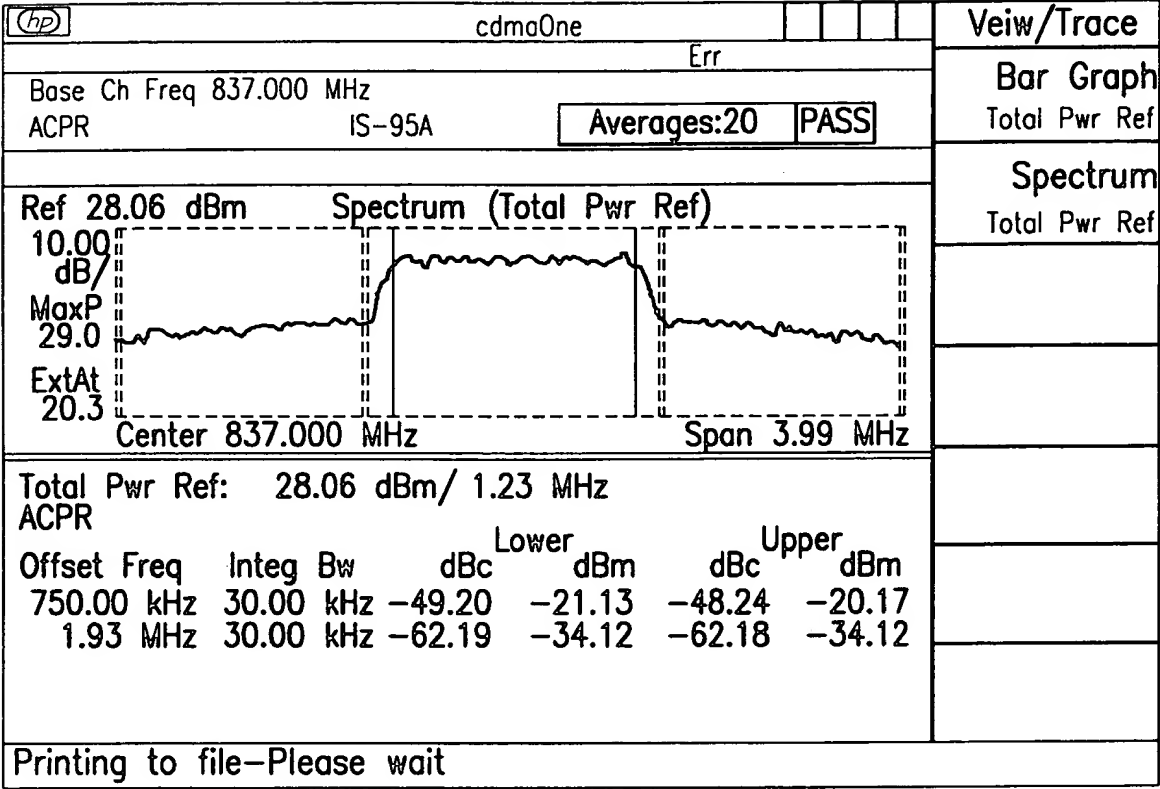
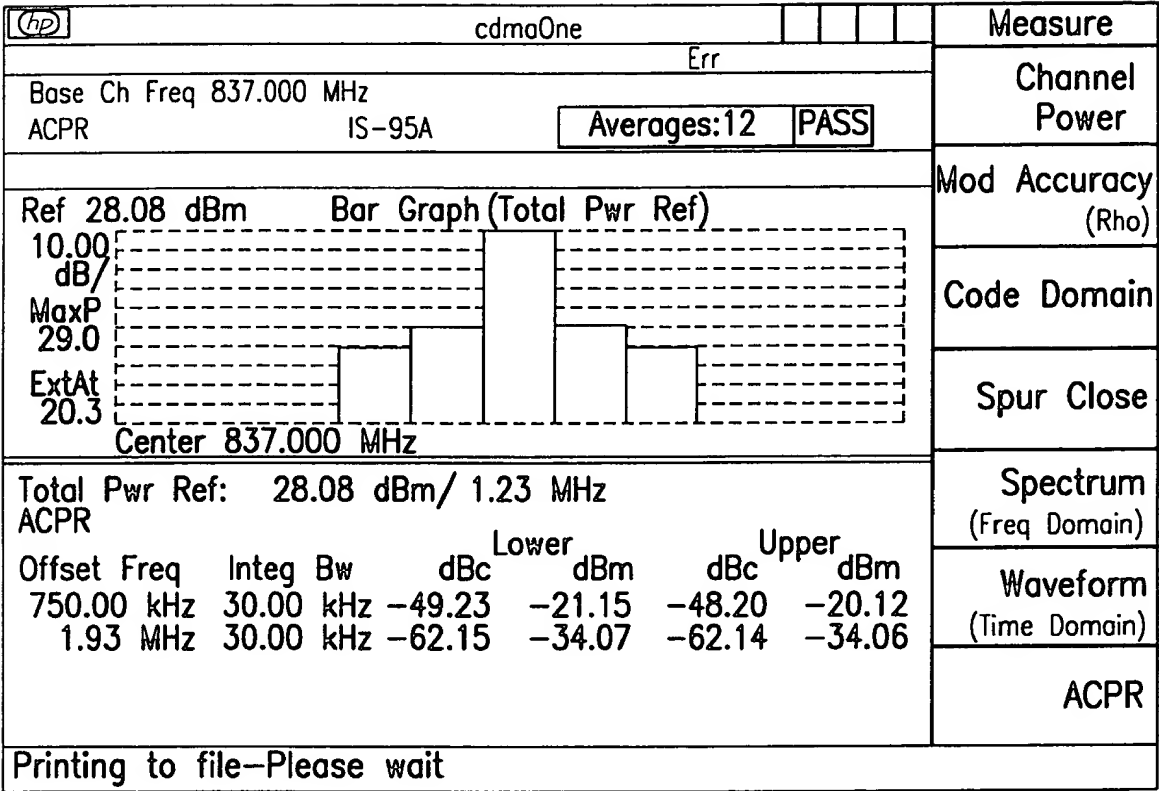


FIG.48

4802



BASE STATION SPECTRAL RESPONSE WITH MASK

FIG.49

4902

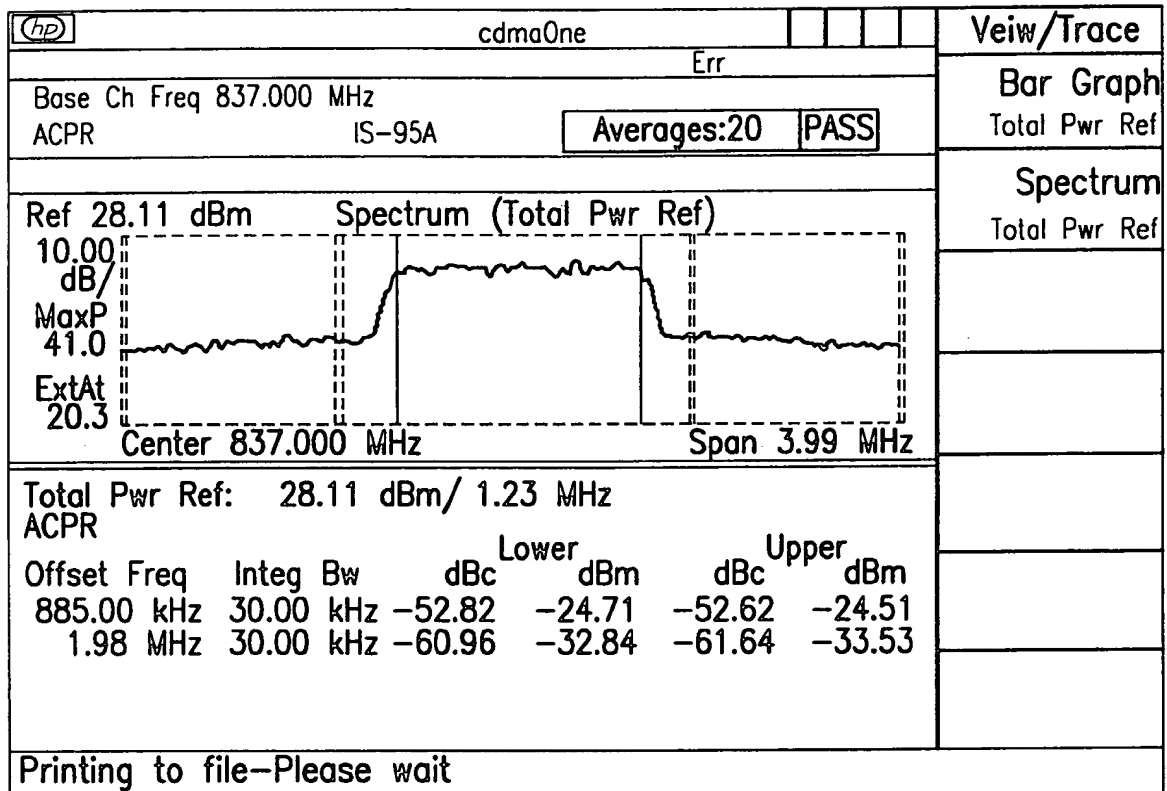
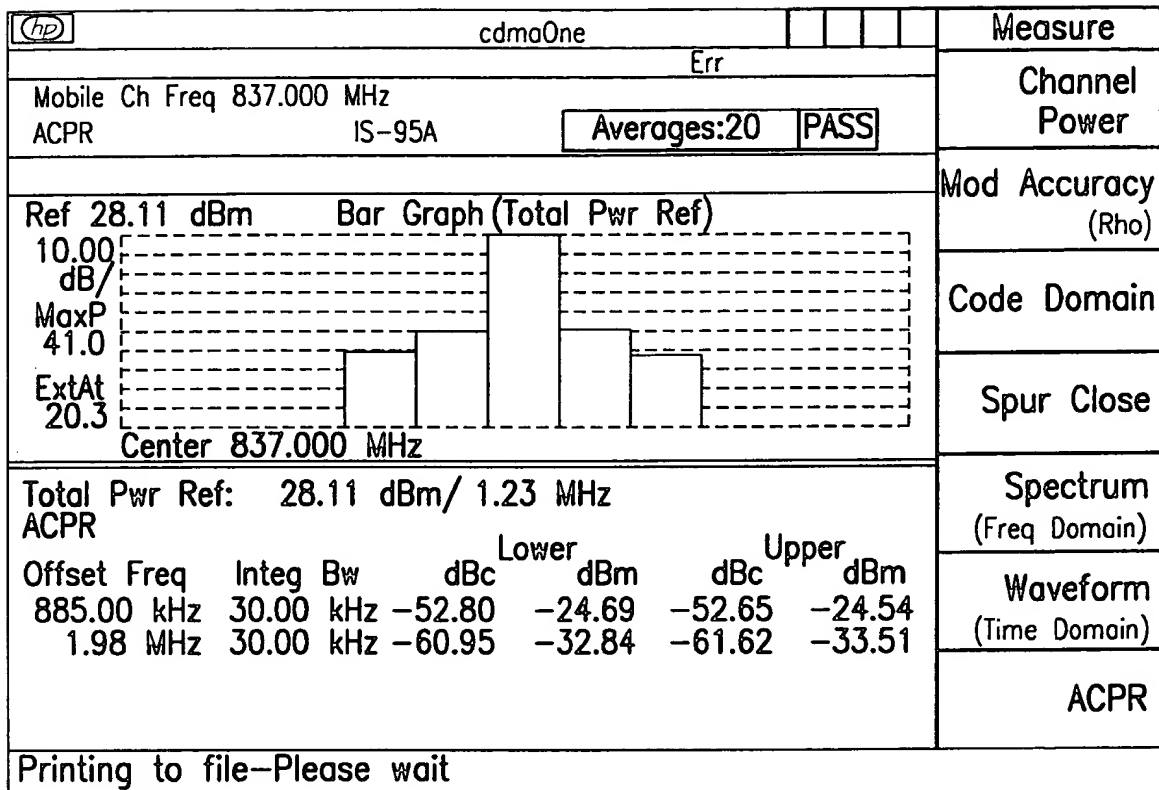


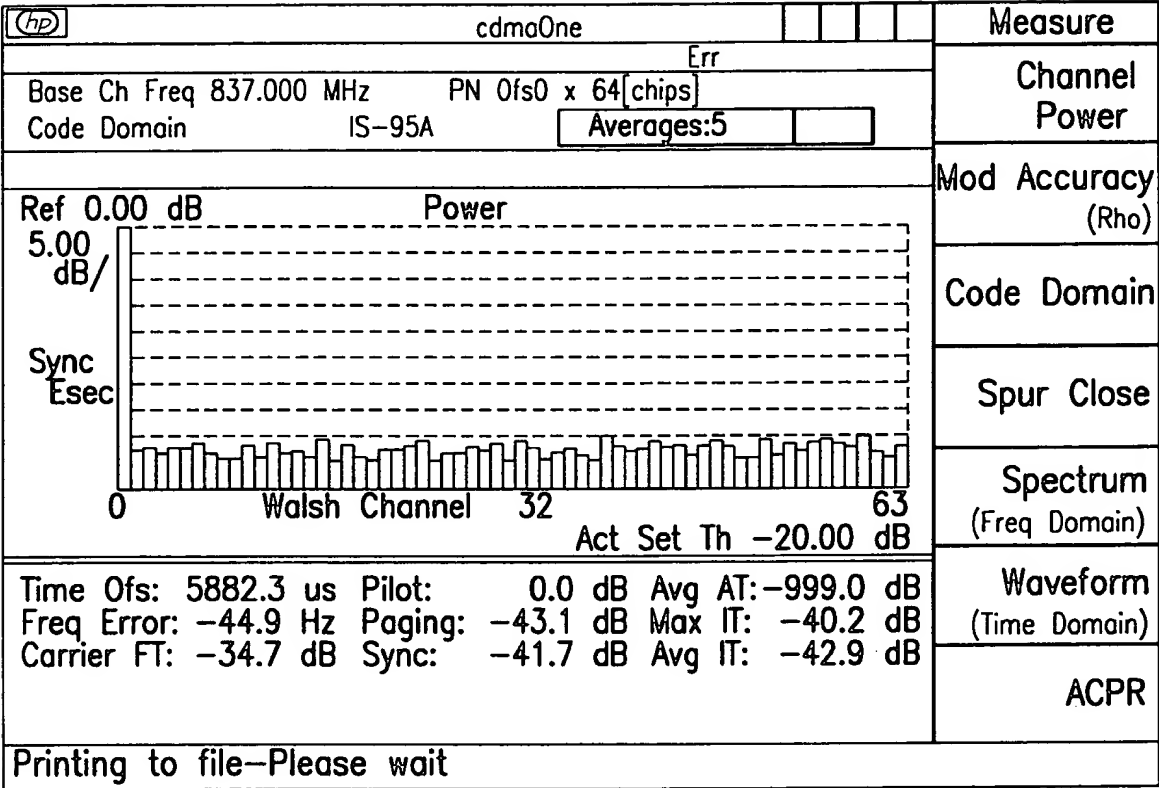
FIG.50

5002



MOBILE STATION SPECTRAL RESPONSE WITH MASK

FIG.51



CDMA CROSSTALK

FIG.52A

5202

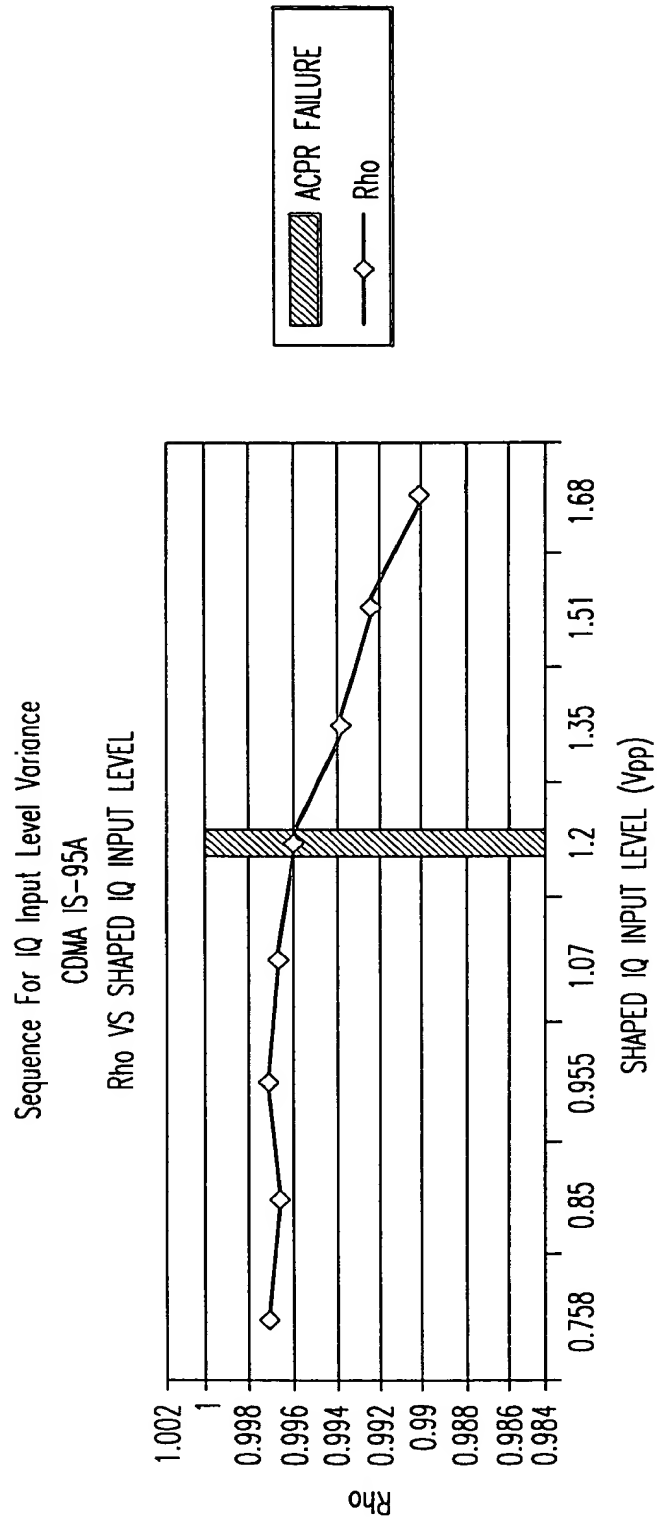


FIG. 52B

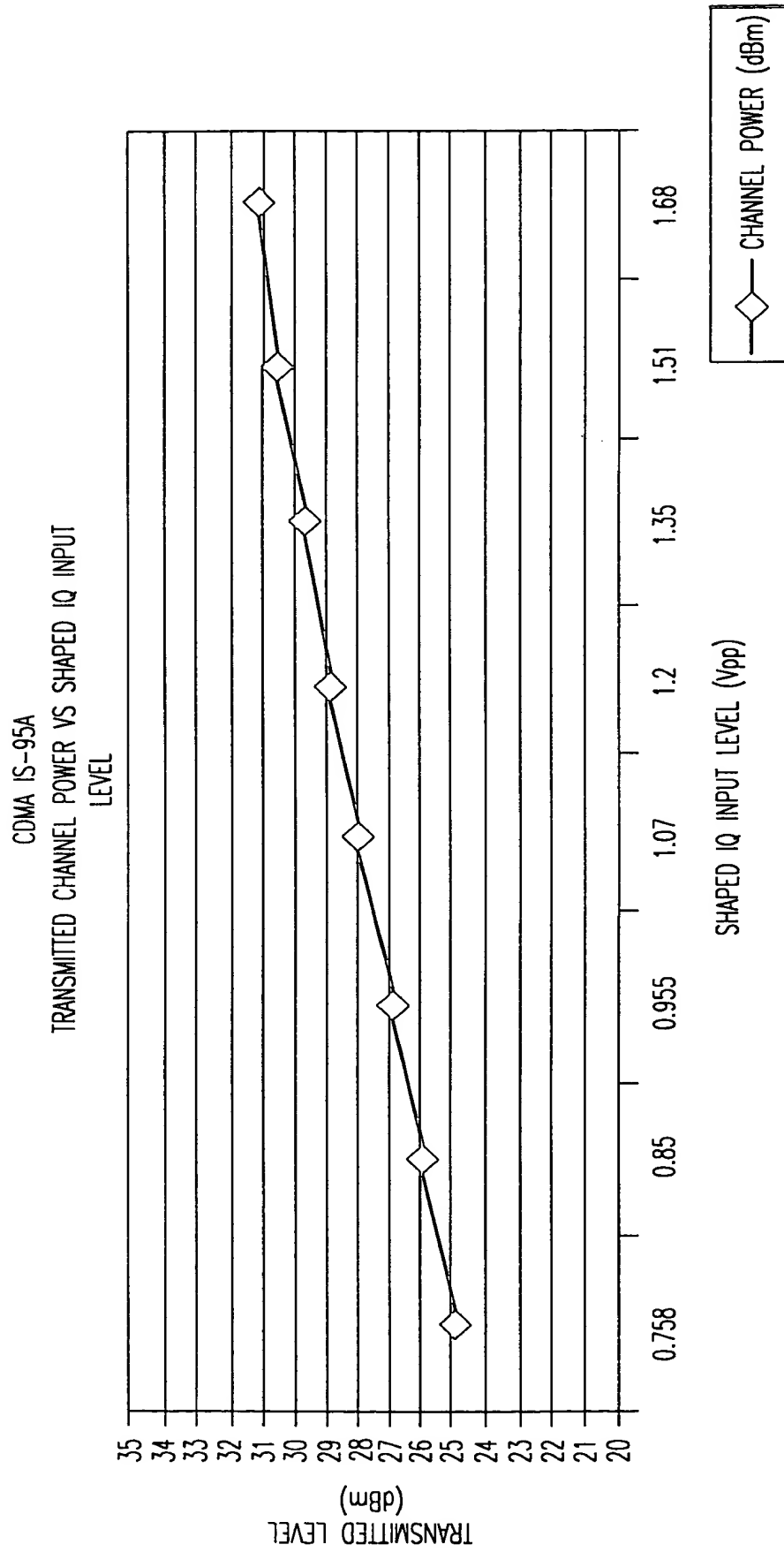


FIG. 52C

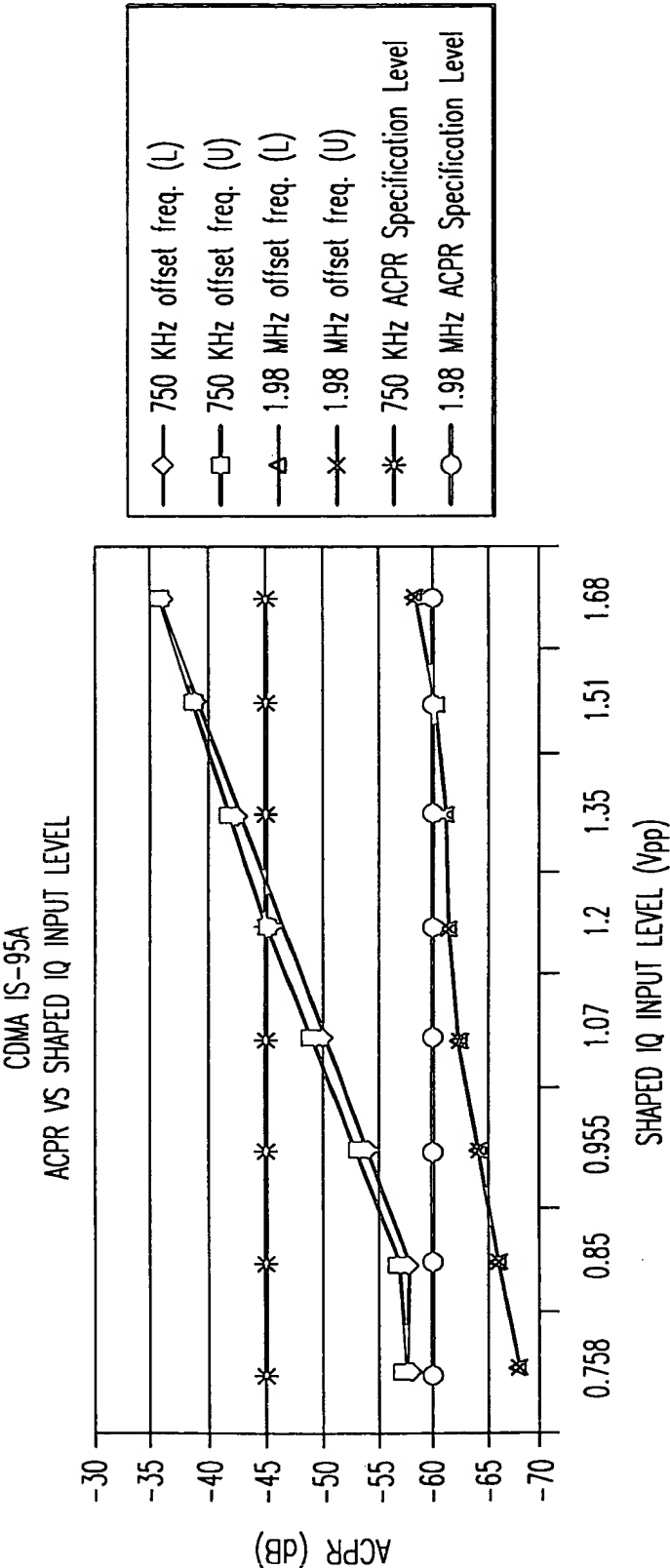


FIG.52D

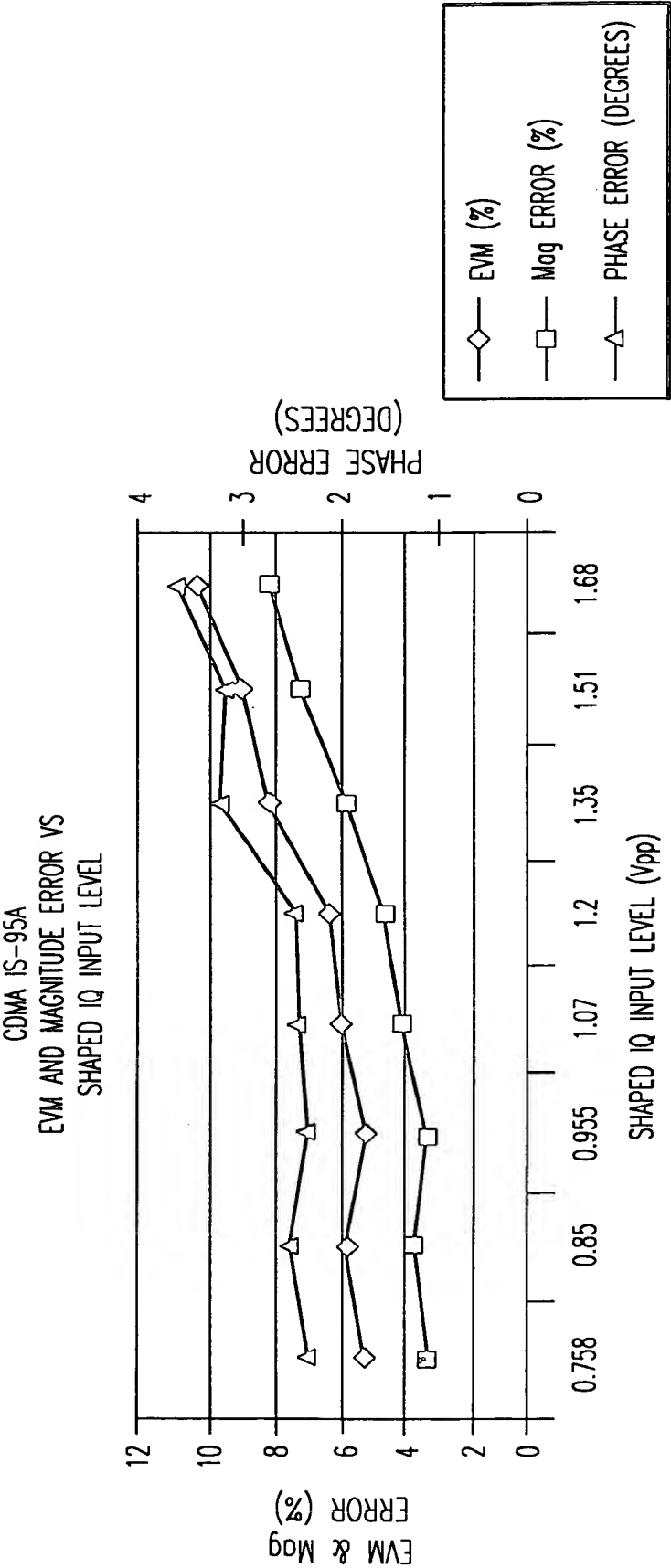


FIG.52E

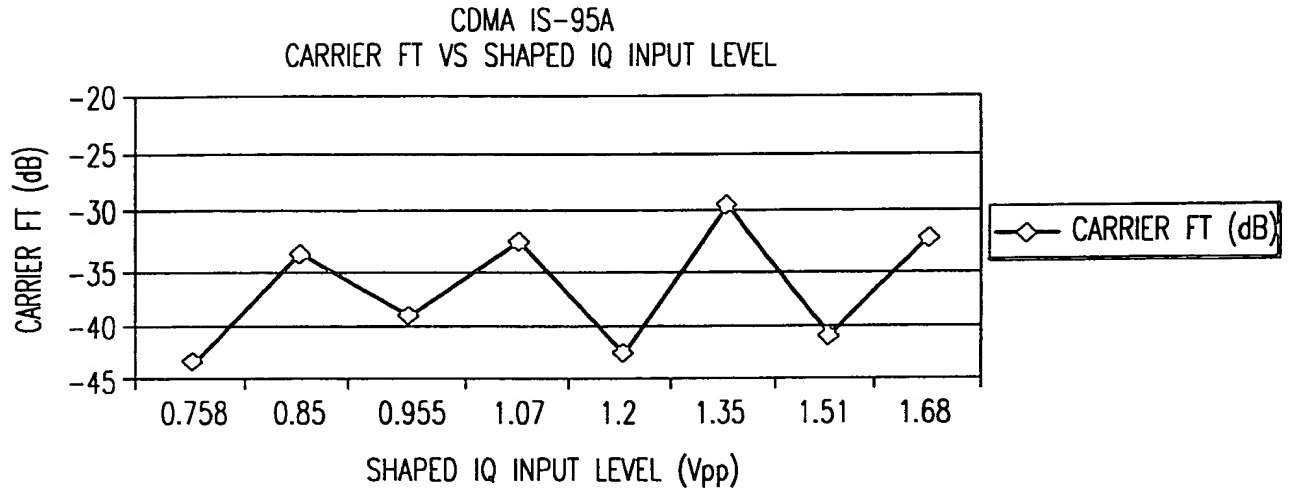


FIG.52F

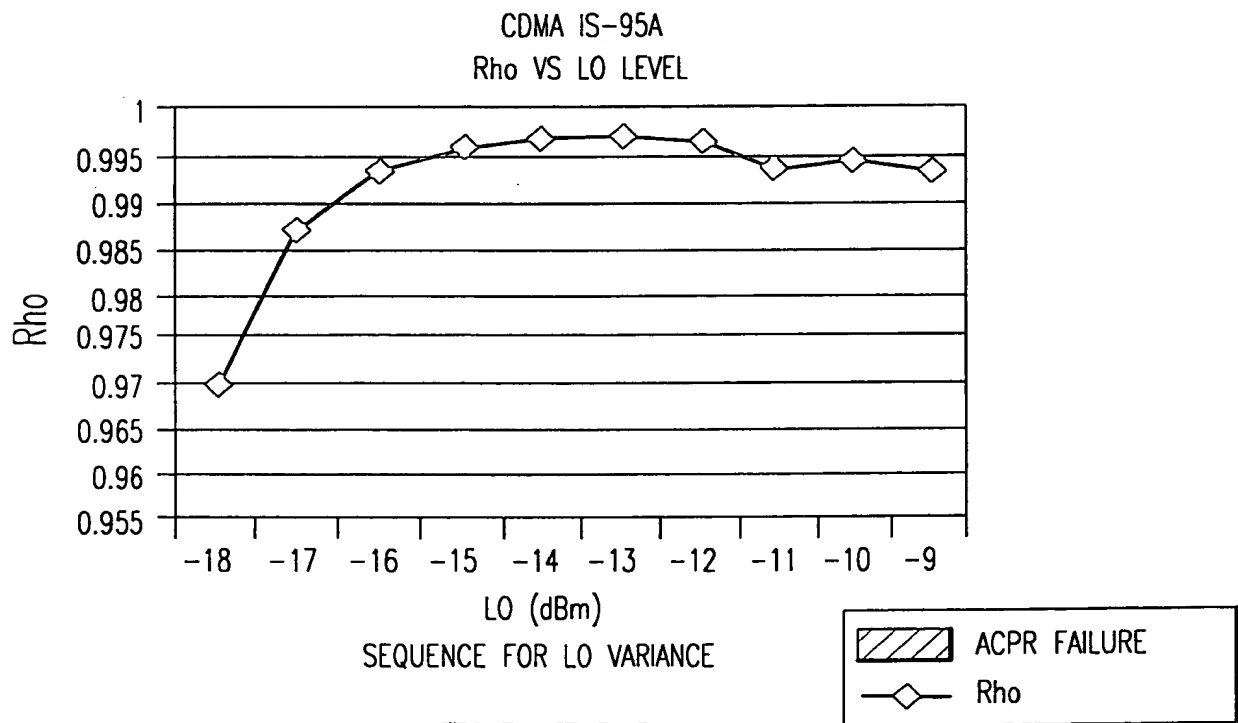


FIG.52G

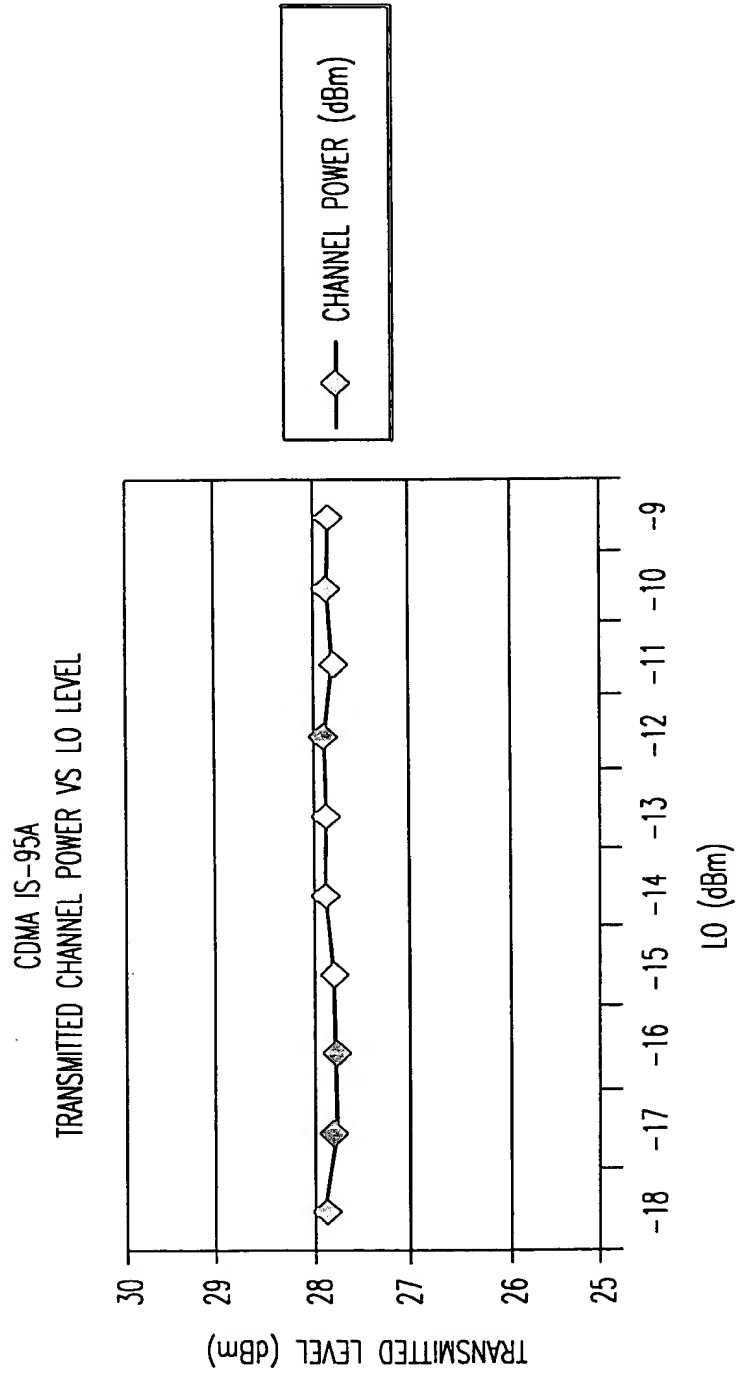


FIG.52H

CDMA IS-95A
 ACPR vs LO LEVEL

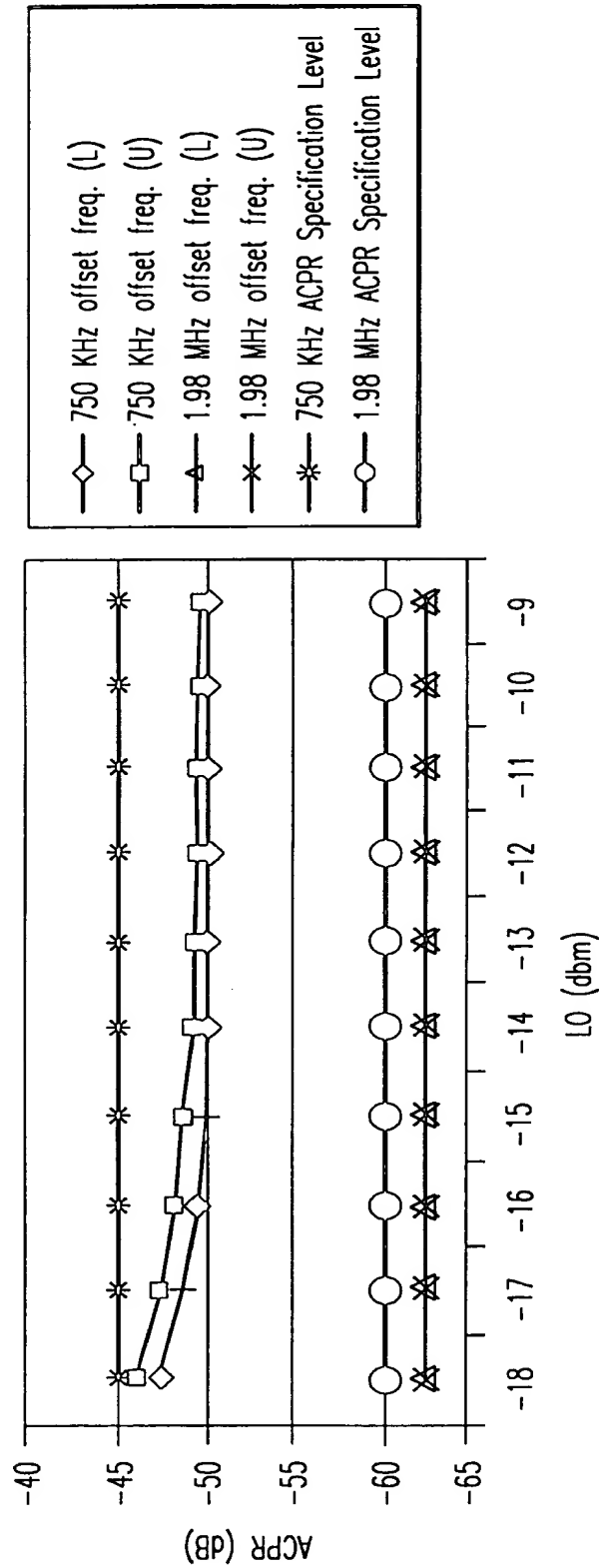
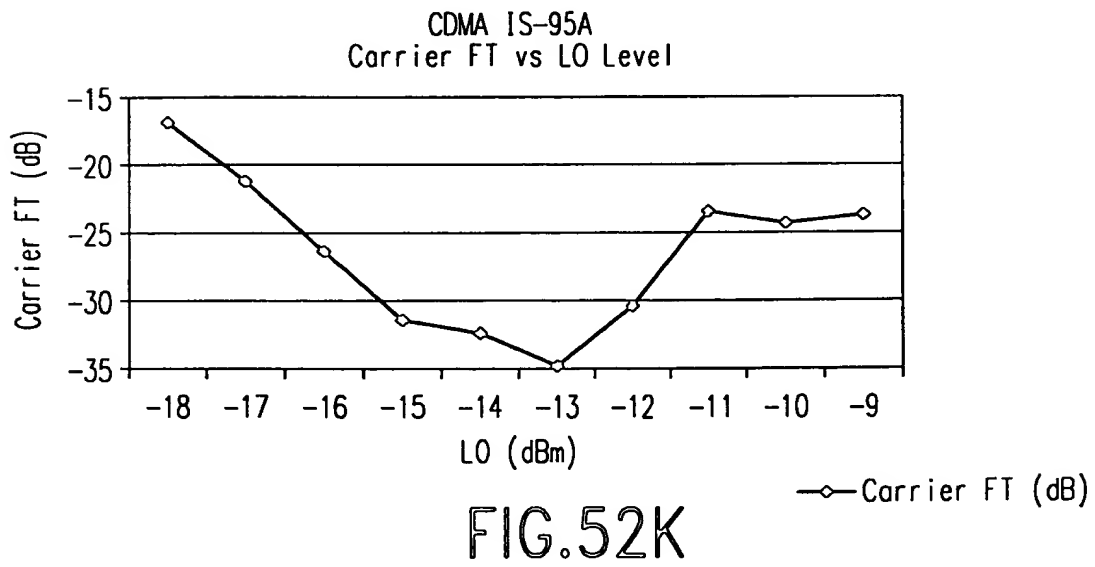
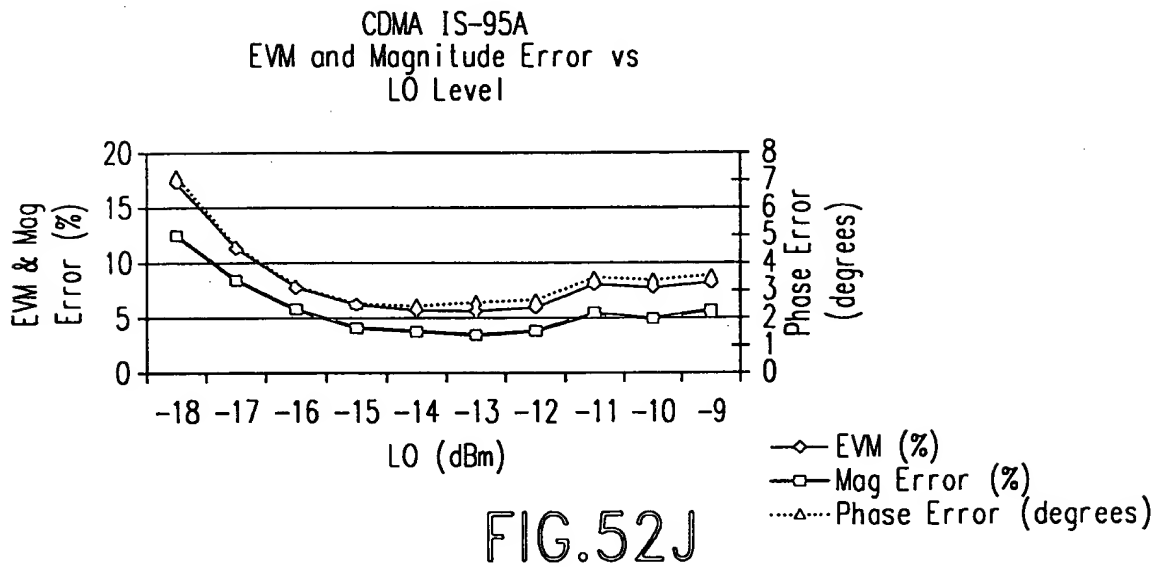
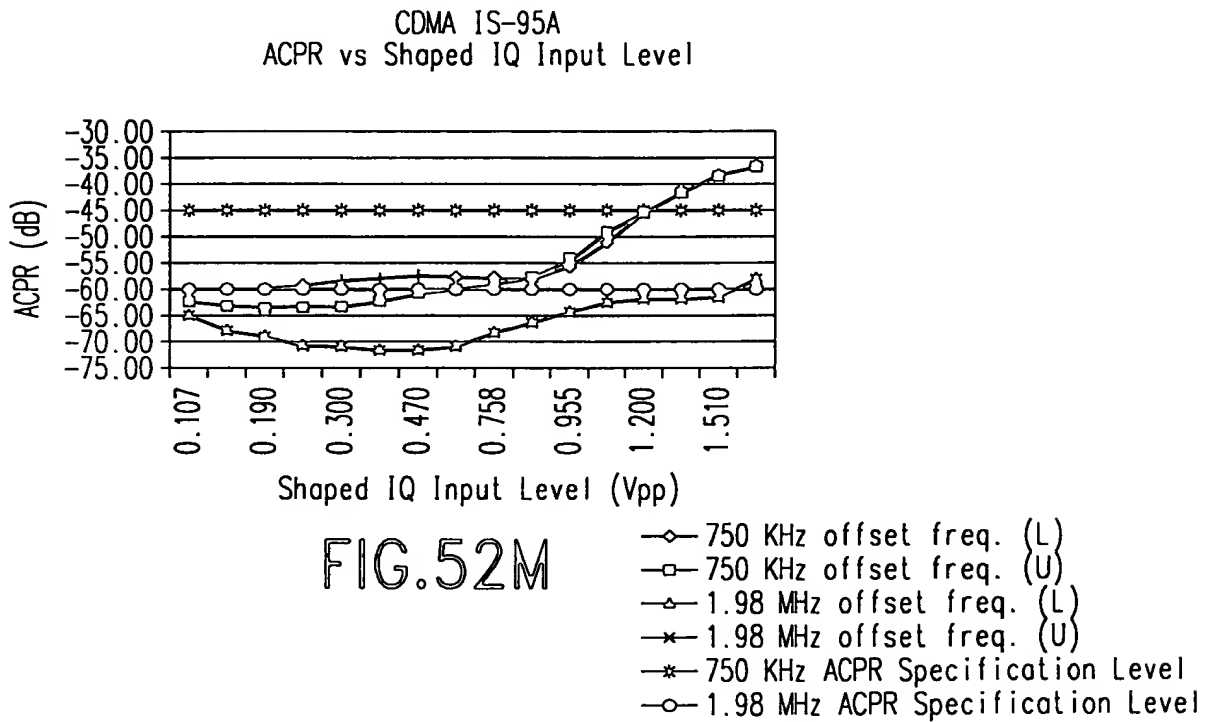
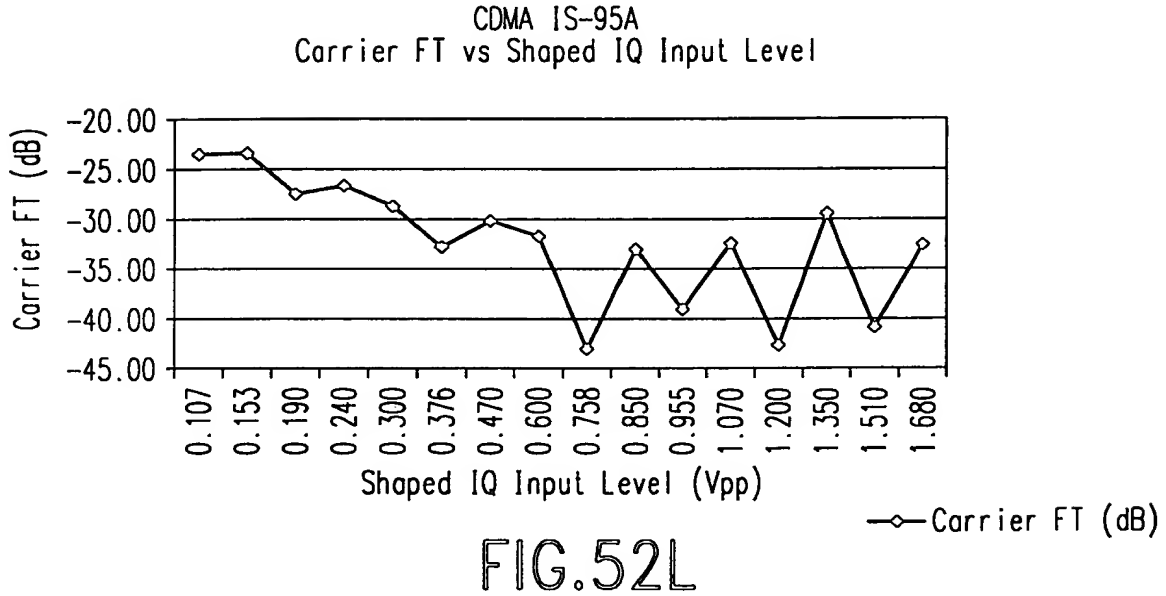


FIG. 521





CDMA IS-95A
 Rho vs Shaped IQ Input Level

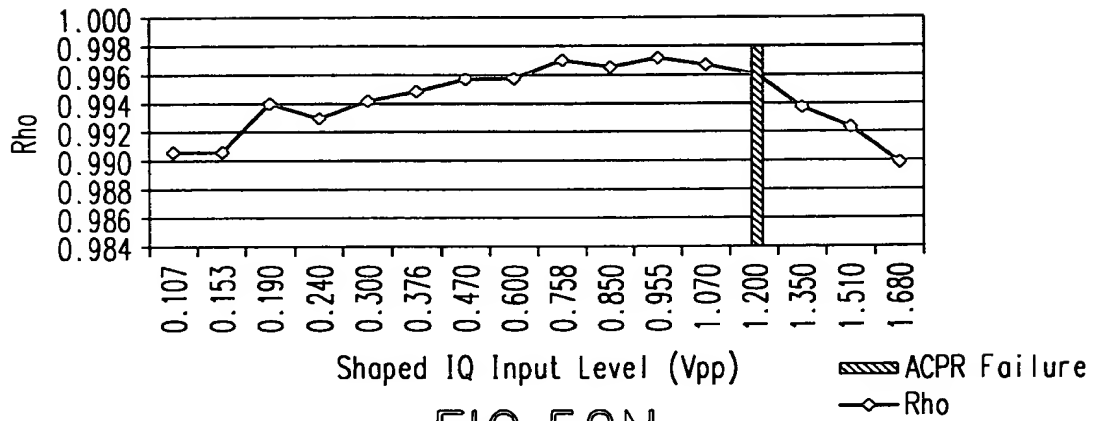


FIG.52N

CDMA IS-95A
 EVM, Magnitude Error and Phase Error
 vs Shaped IQ Input Level

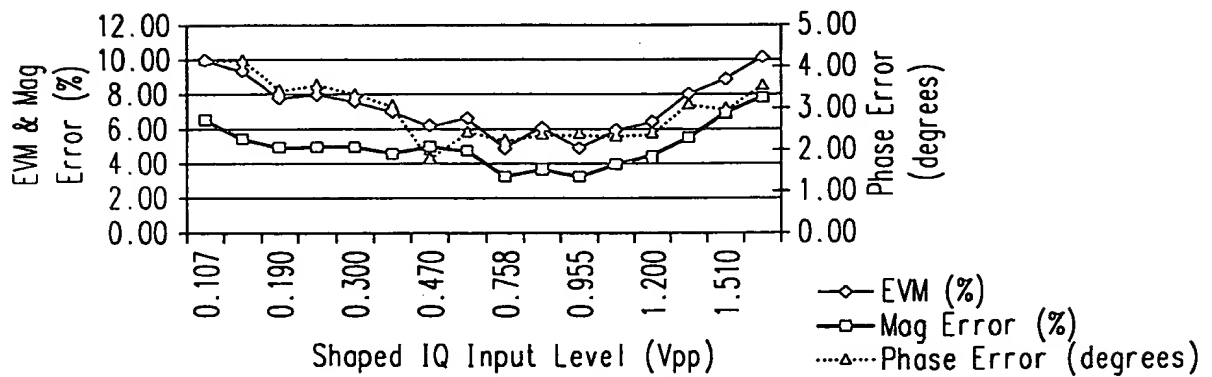


FIG.52O

Sequence For IQ Input Level Variance
 CDMA IS-95A Mobile Transmitter@+3.3V
 Rho vs Shaped IQ Input Level

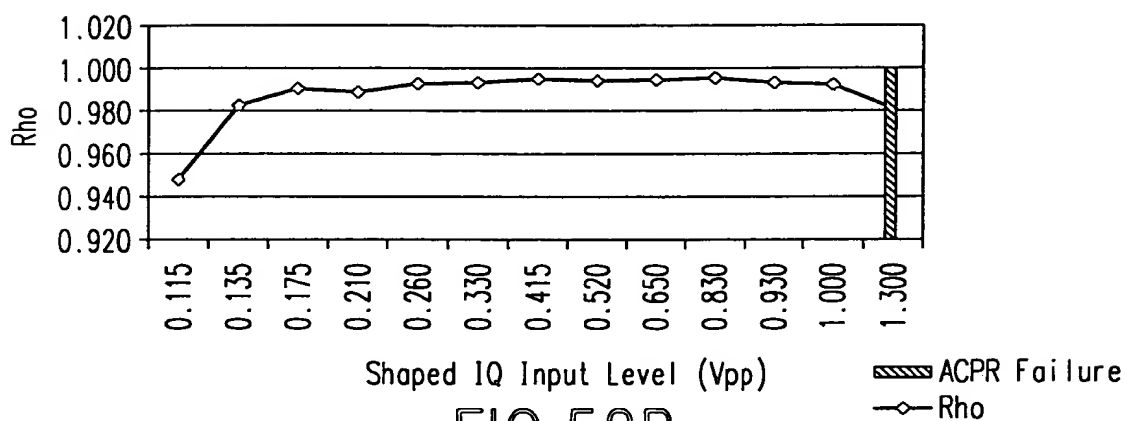


FIG.52P

CDMA IS-95A Mobile Transmitter@+3.3V
 Transmitted Channel Power vs Shaped IQ Input Level

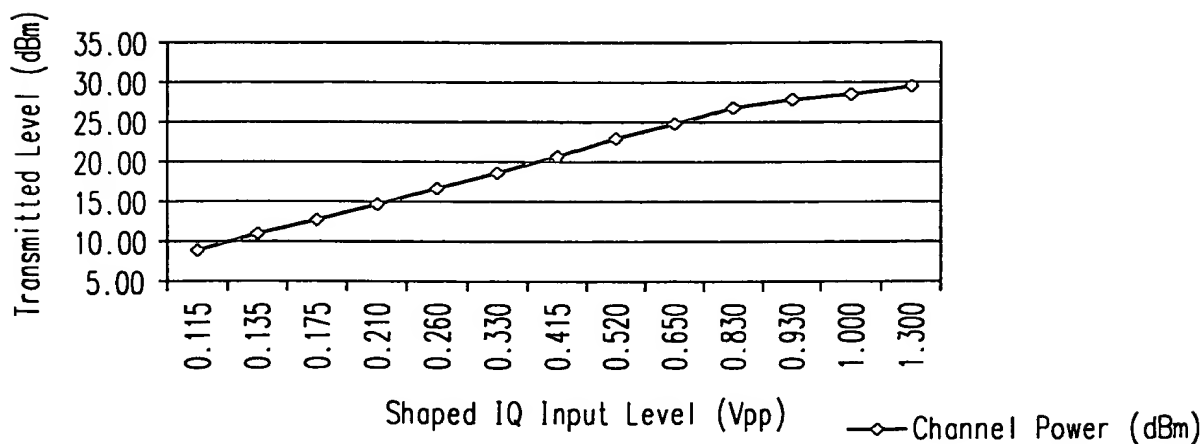


FIG.52Q

CDMA IS-95A Mobile Transmitter@+3.3V
 ACPR vs Shaped IQ Input Level

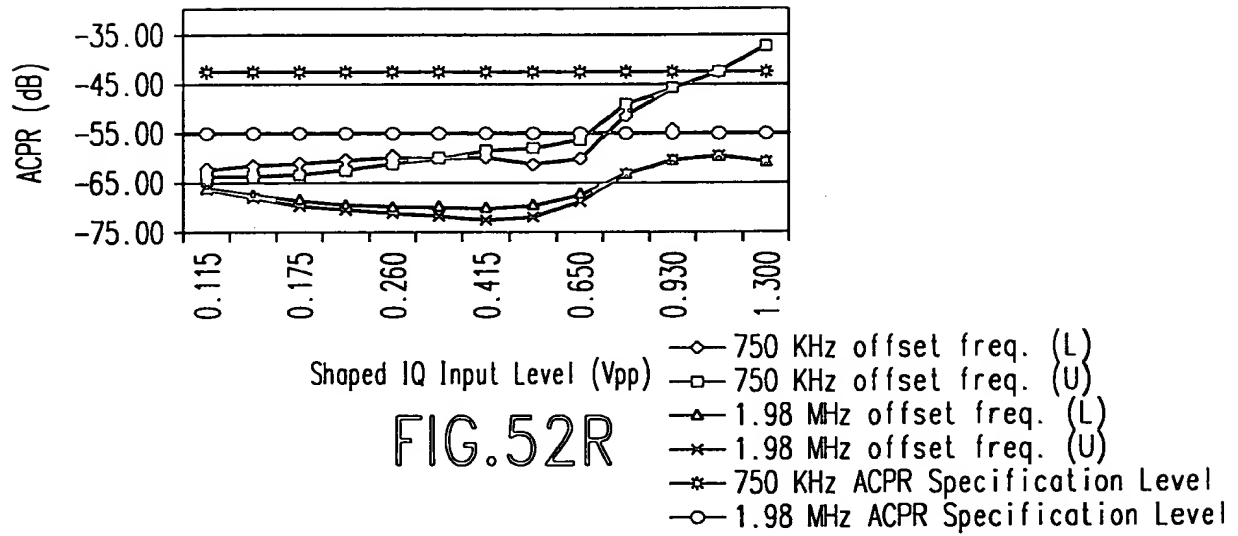


FIG.52R

CDMA IS-95A Mobile Transmitter@+3.3V
 EVM, Magnitude Error and Phase Error
 vs Shaped IQ Input Level

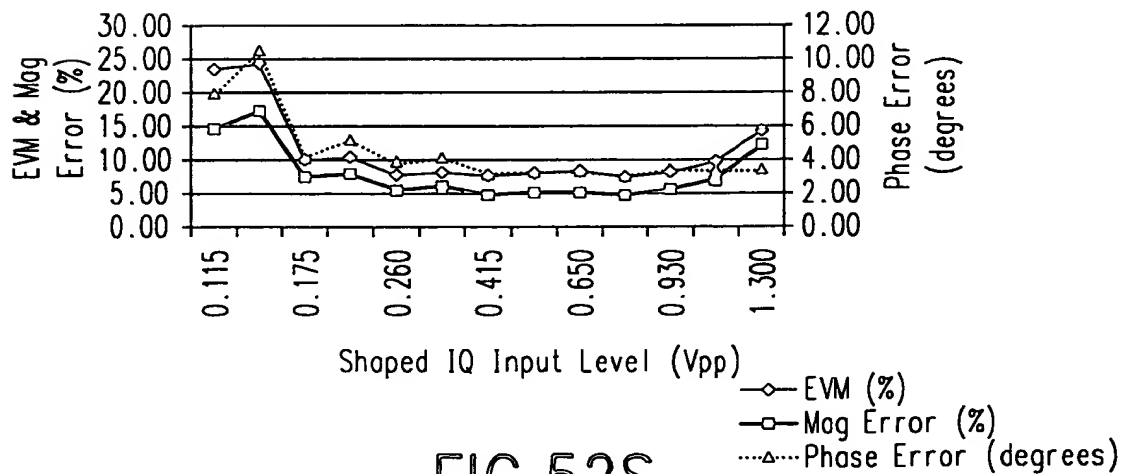


FIG.52S

CDMA IS-95A Mobile Transmitter@+3.3V
 Carrier FT vs Shaped IQ Input Level

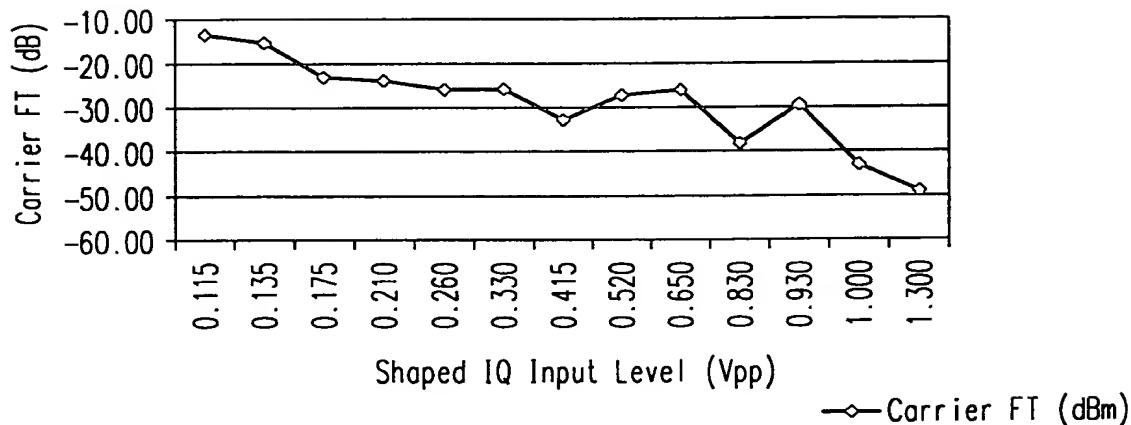


FIG.52T

Sequence For LO Variance
 CDMA IS-95A Mobile Transmitter@+3.3V
 Rho vs LO Level

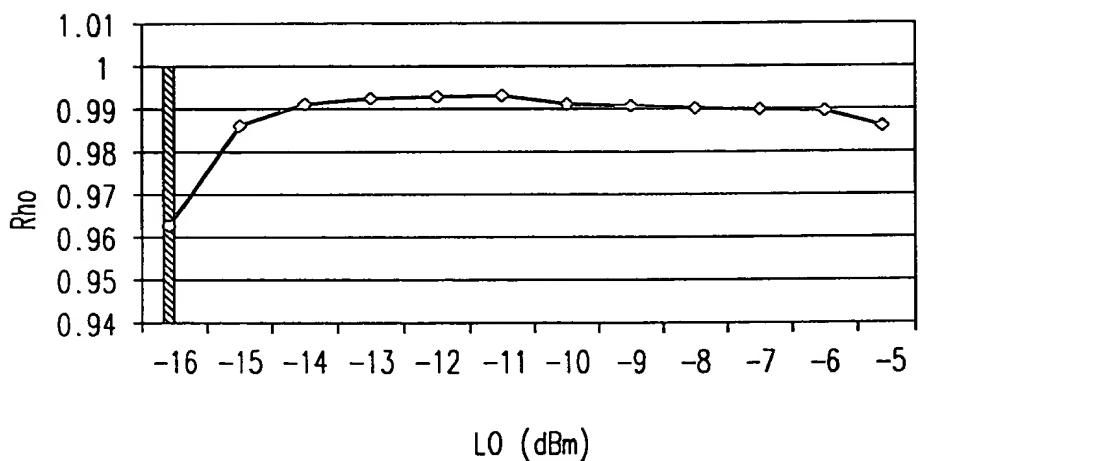


FIG.52U

CDMA IS-95A Mobile Transmitter@+3.3V
 Transmitted Channel Power vs LO Level

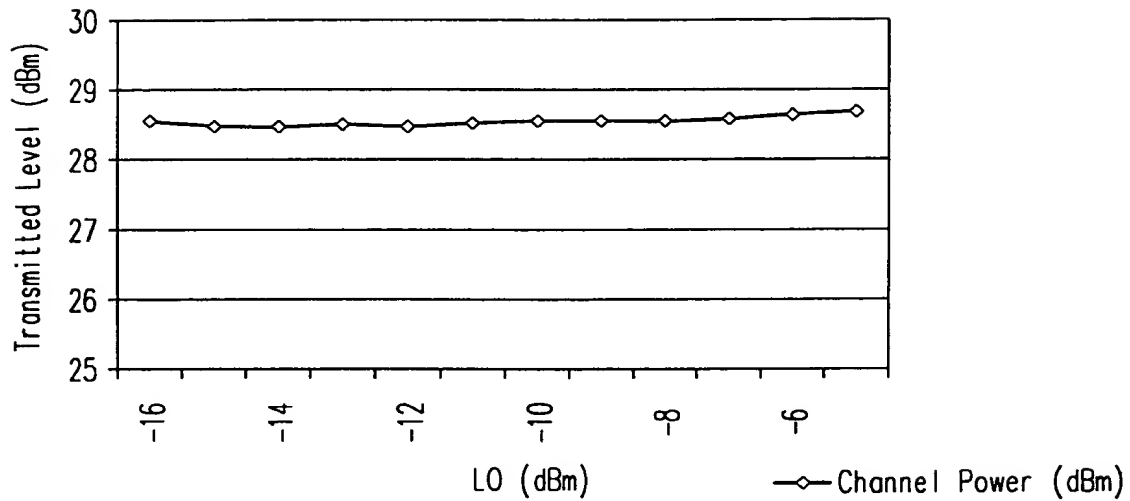


FIG.52V

CDMA IS-95A Mobile Transmitter@+3.3V
 ACPR vs LO Level

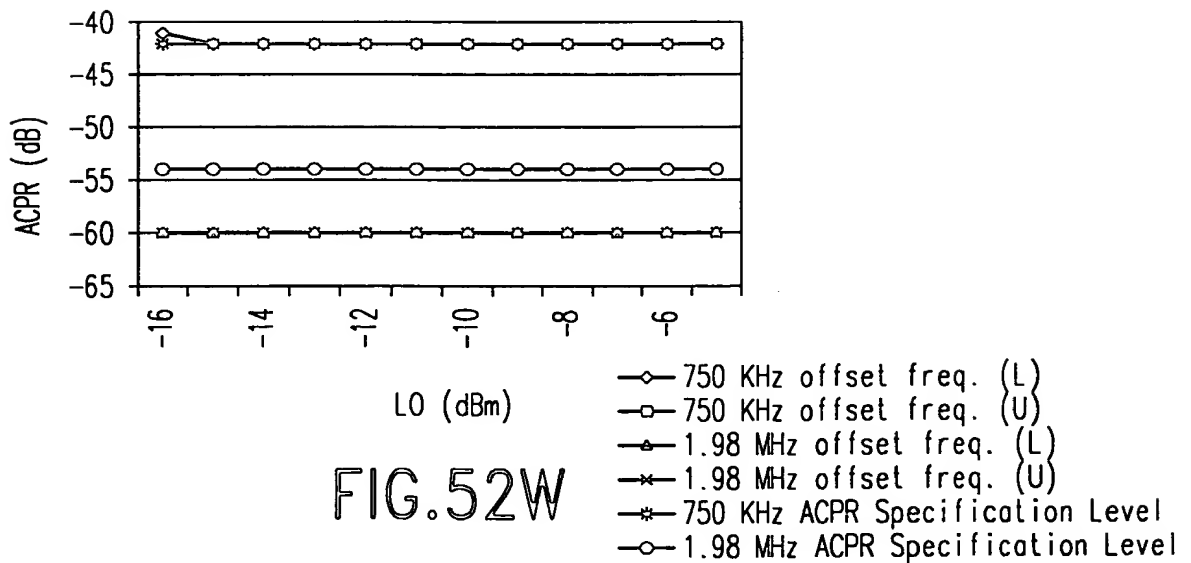
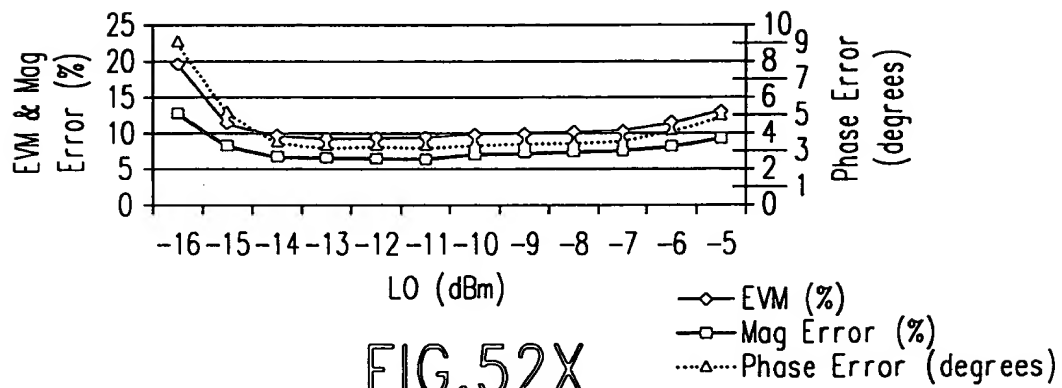
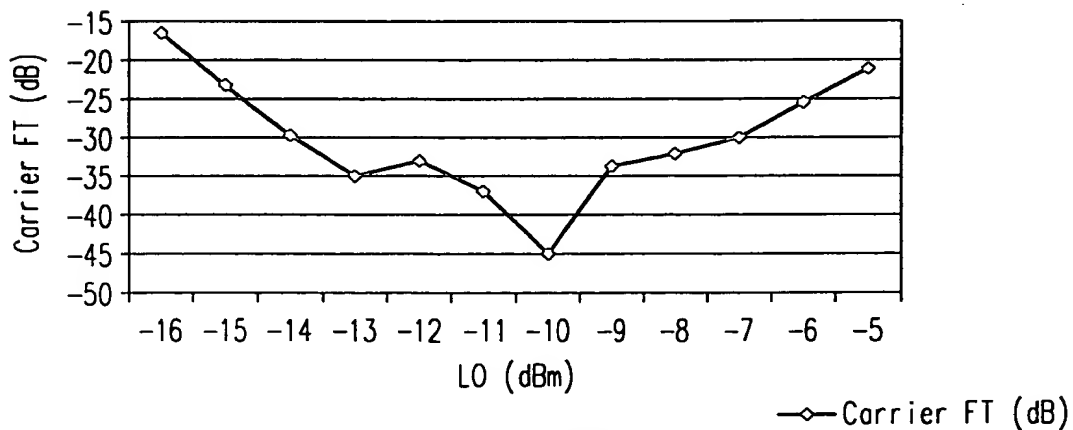


FIG.52W

CDMA IS-95A Mobile Transmitter@+3.3V
 EVM and Magnitude Error vs
 LO Level



CDMA IS-95A Mobile Transmitter@+3.3V
 Carrier FT vs LO Level



QUANTITY	DESCRIPTION	VOLTAGE	TOTAL CURRENT	POWER
2	CORES	3.3	4mA	13.2mW
2	BASEBAND INTERFACE CIRCUITS WITH/BW LIMIT	3.3	6mA	21.8mW
1	CLOCK CIRCUIT	3.3	5mA	20.0mW
			SUB TOTAL	54.0mW

FIG. 52Z

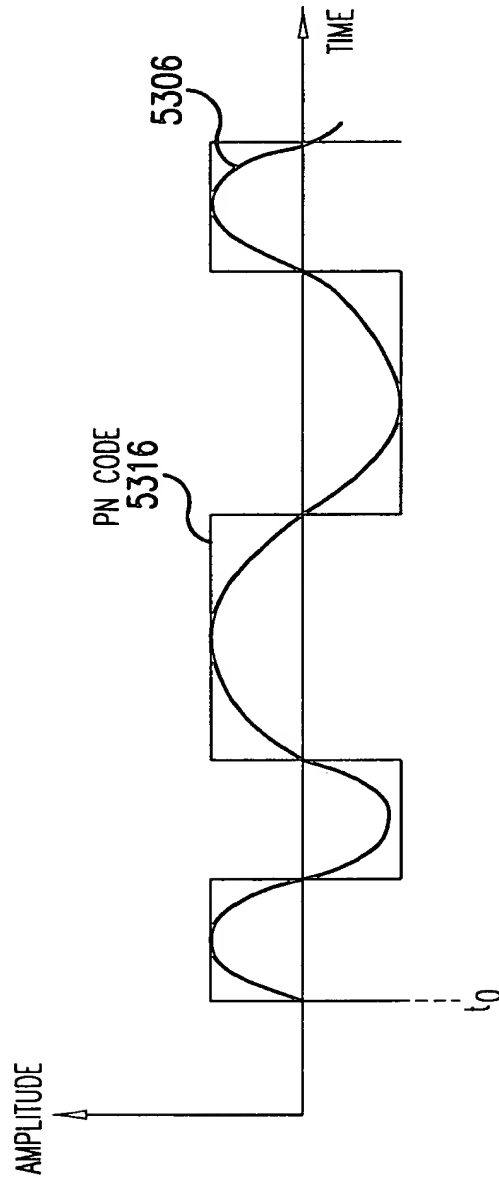


FIG. 53B

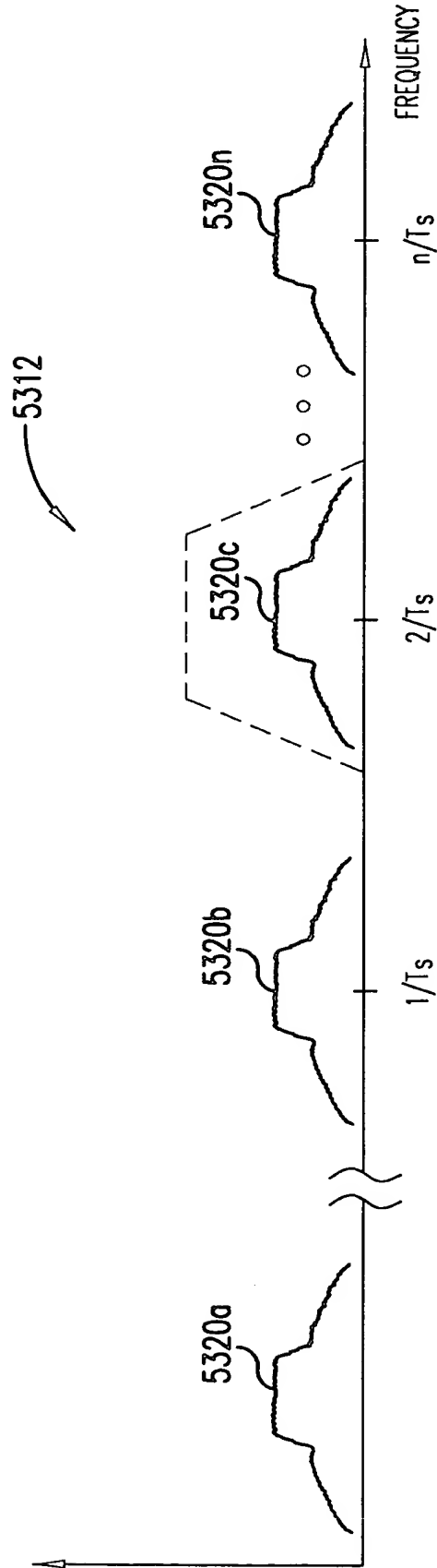


FIG. 53C

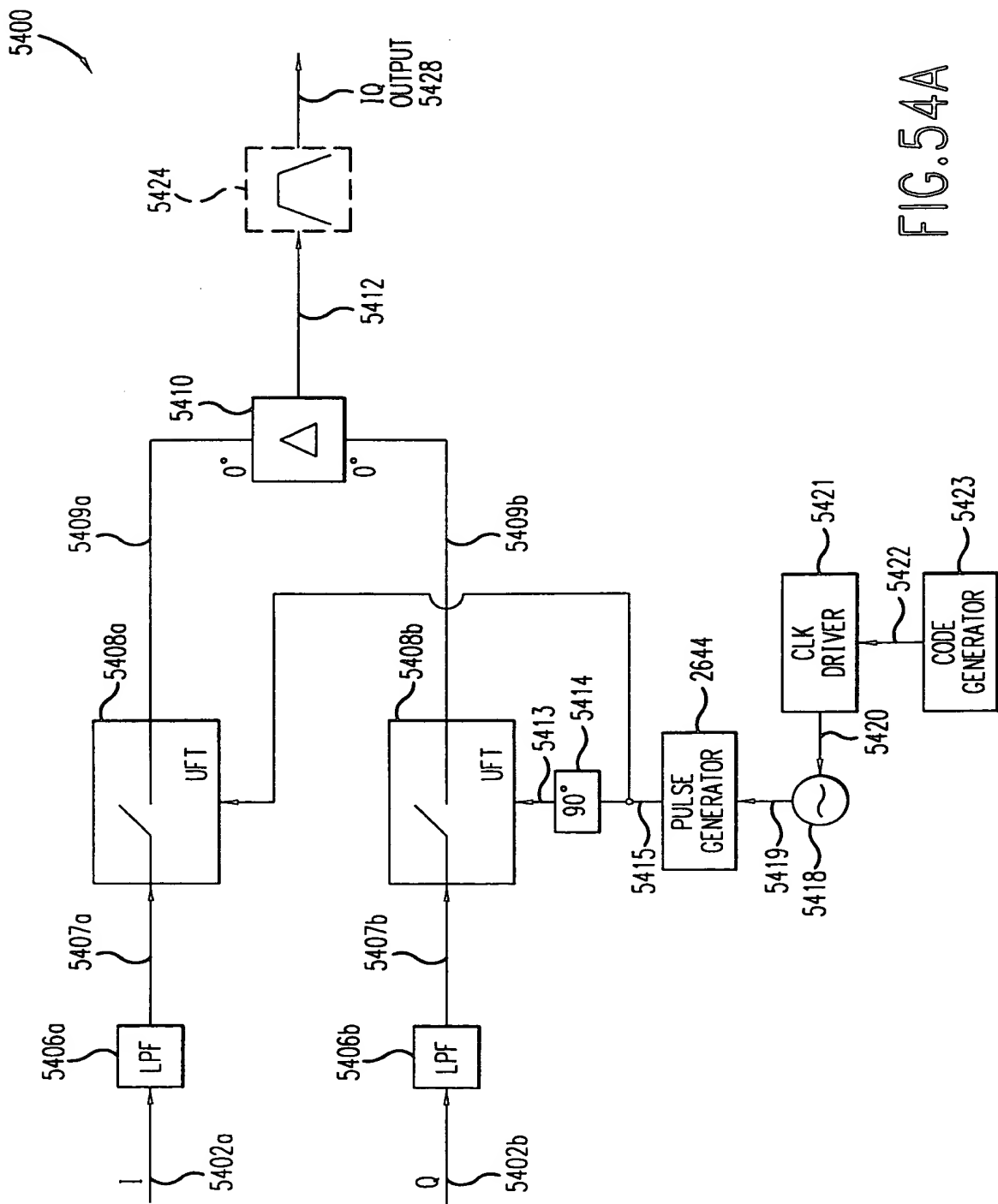


FIG. 54A

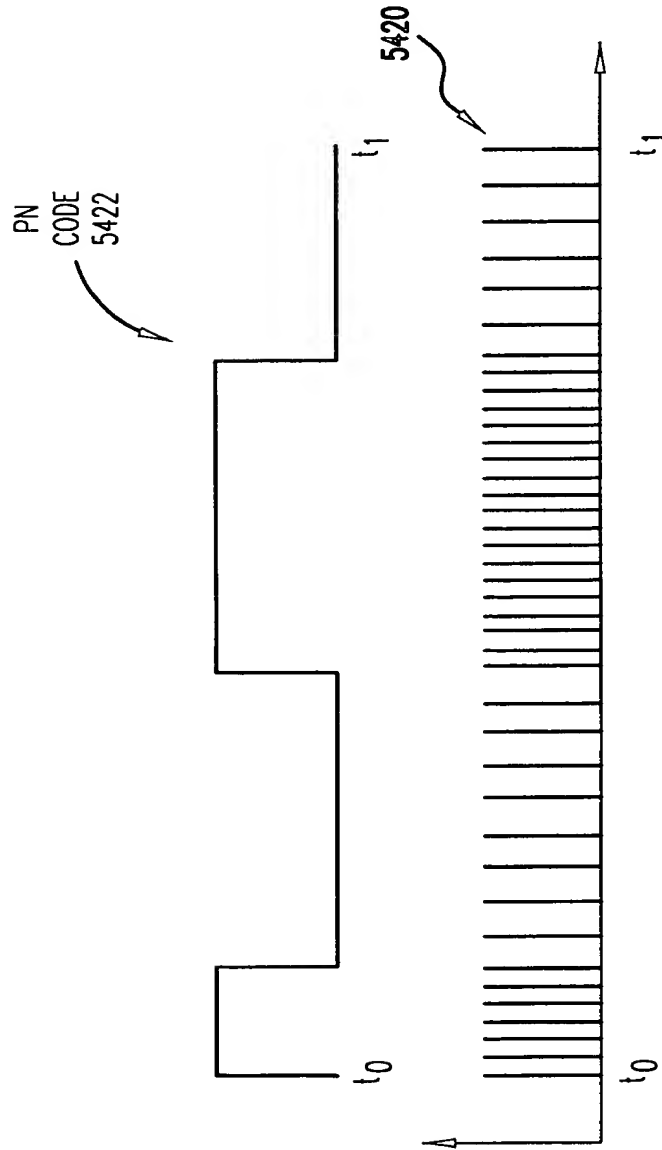


FIG. 54B

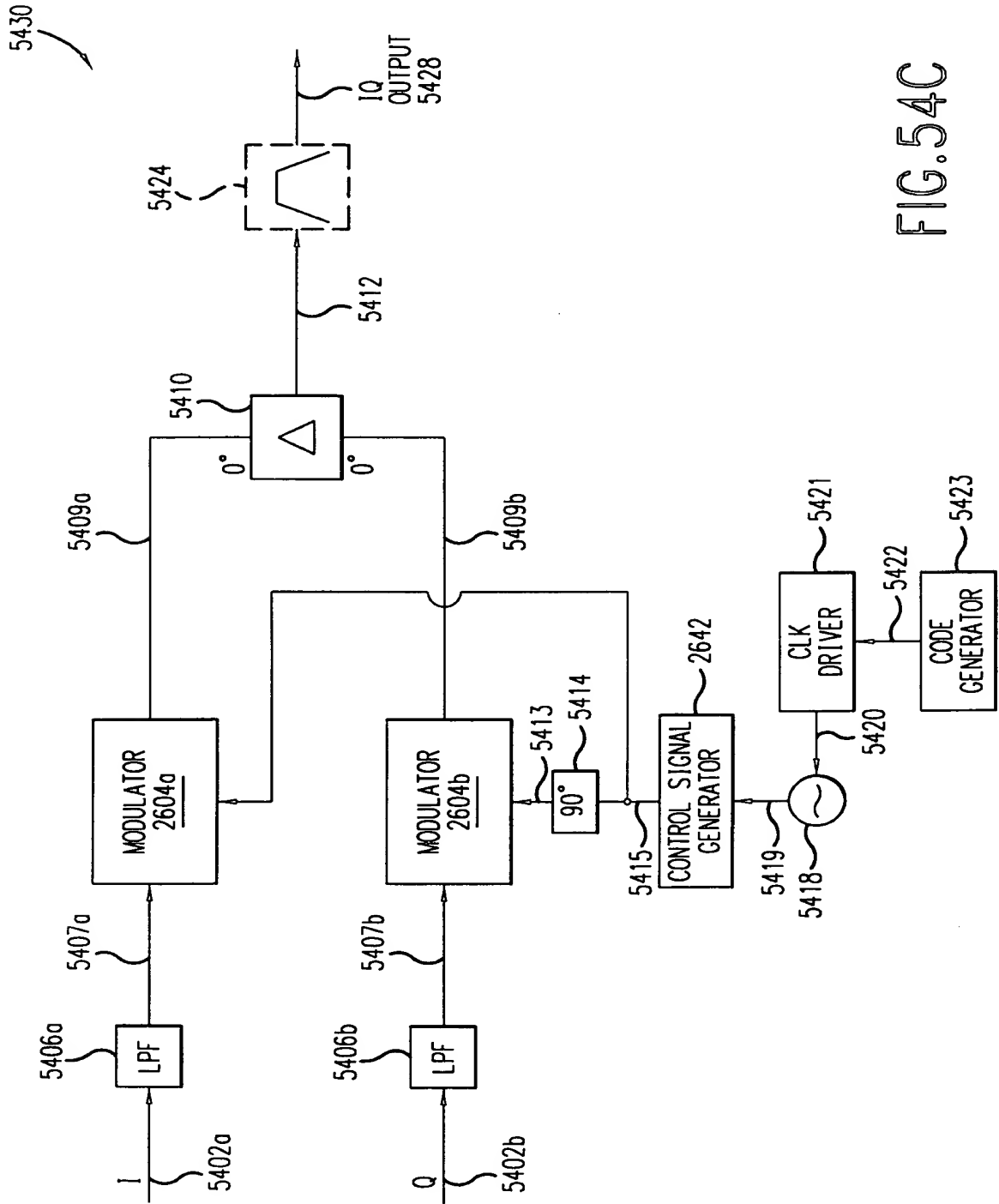


FIG. 54C

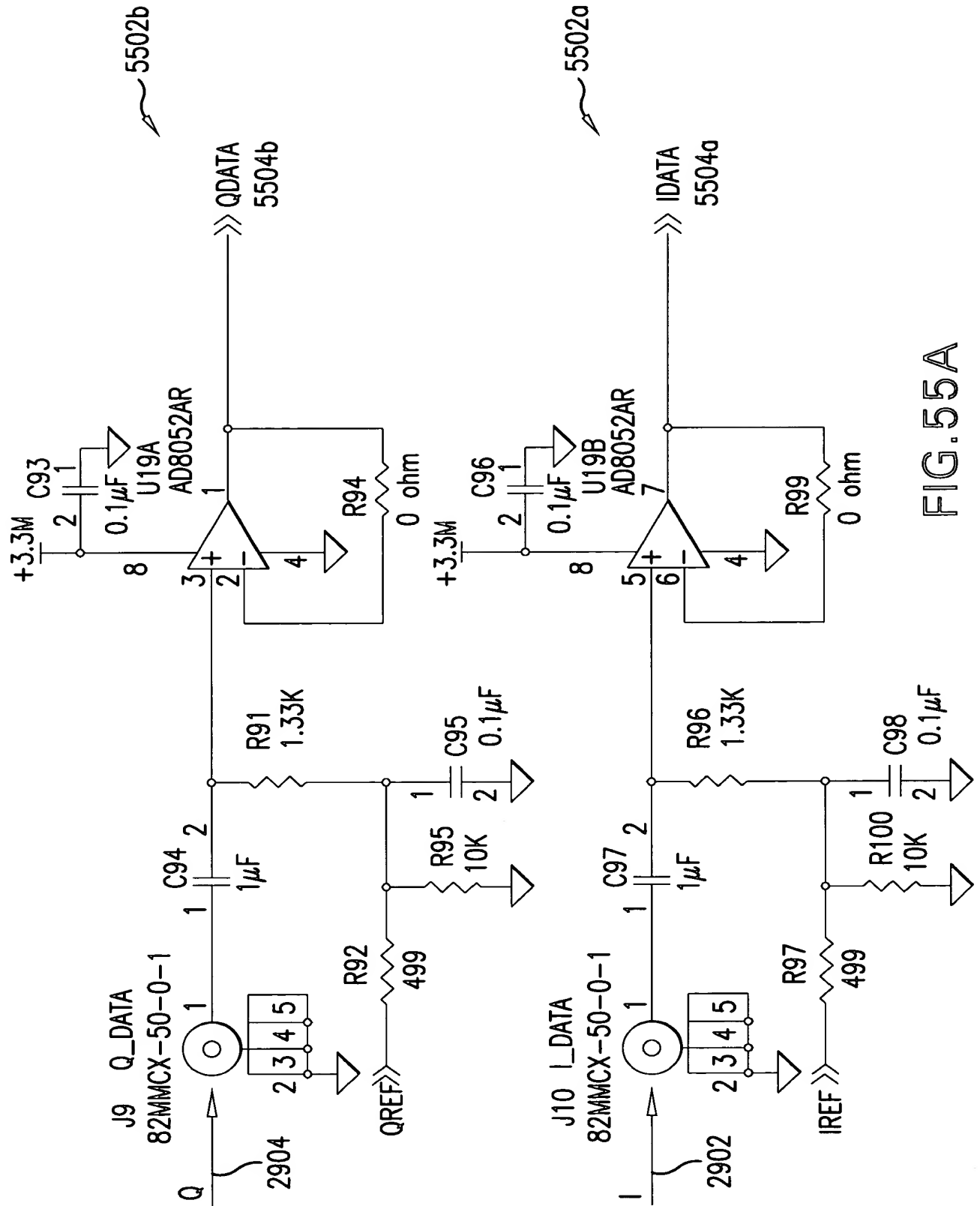


FIG.55 B-1	FIG.55 B-2	FIG.55 B-3	FIG.55 B-4
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FIG.55B

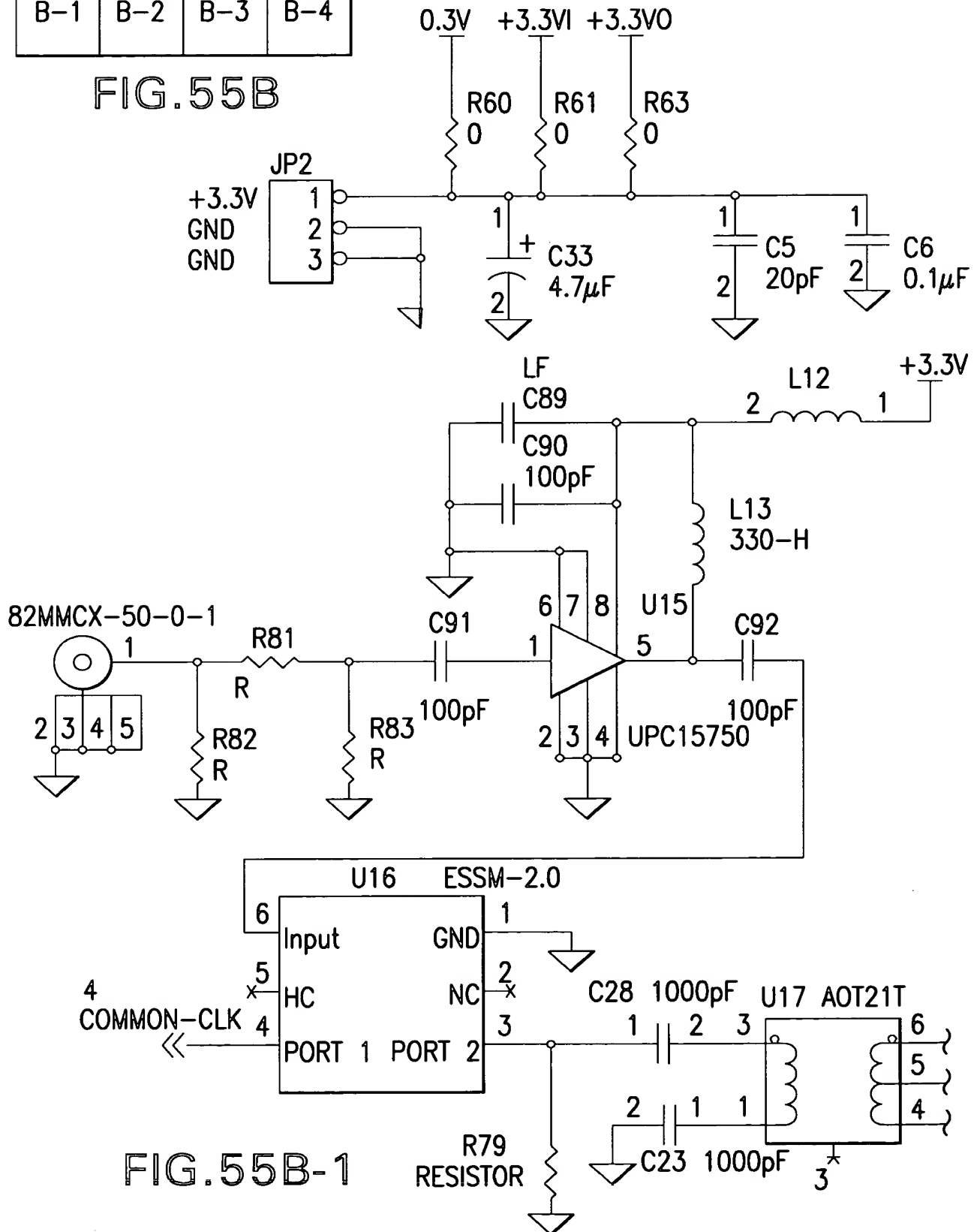


FIG.55B-1

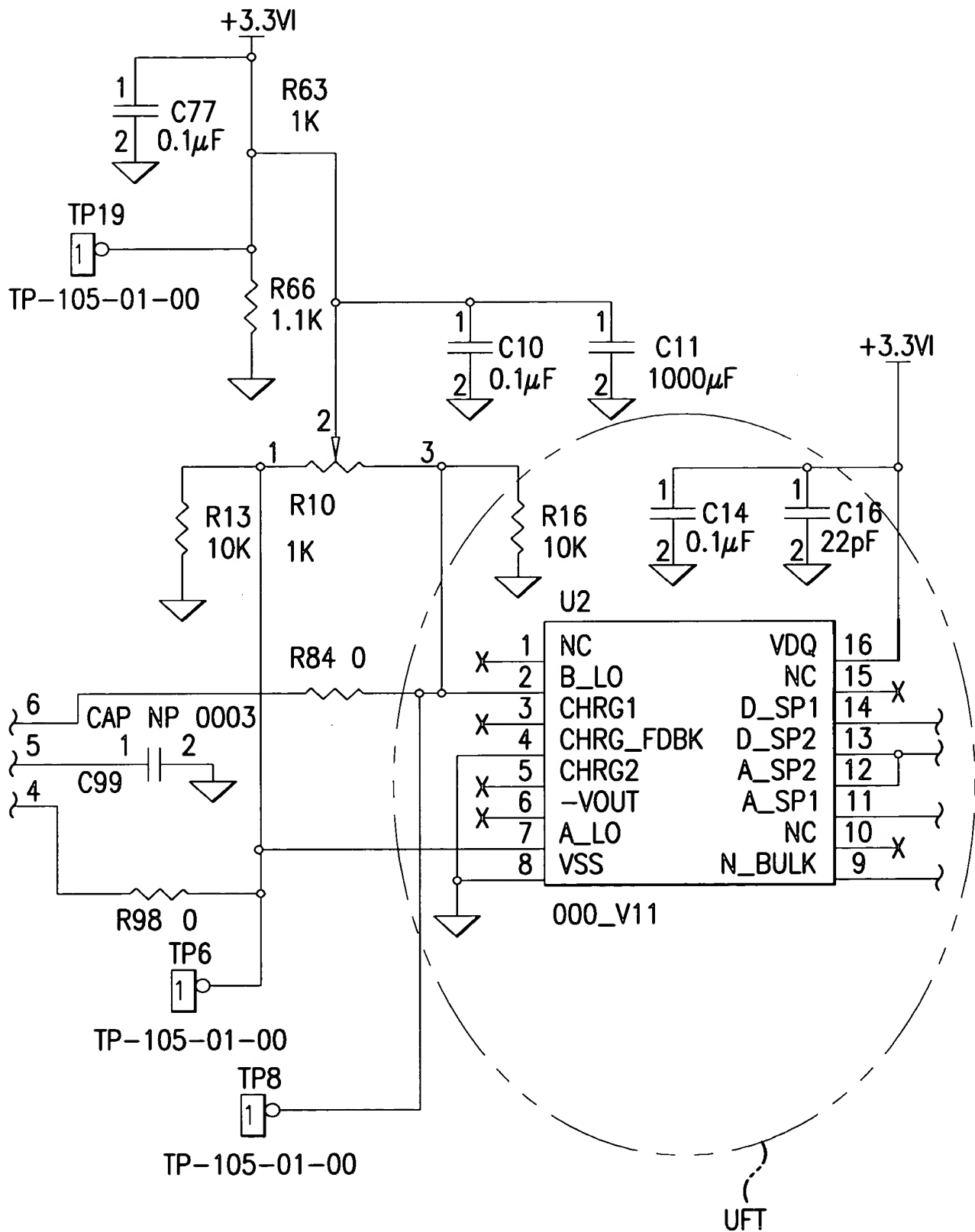


FIG. 55B-2

UFT
 2624a, 2628b

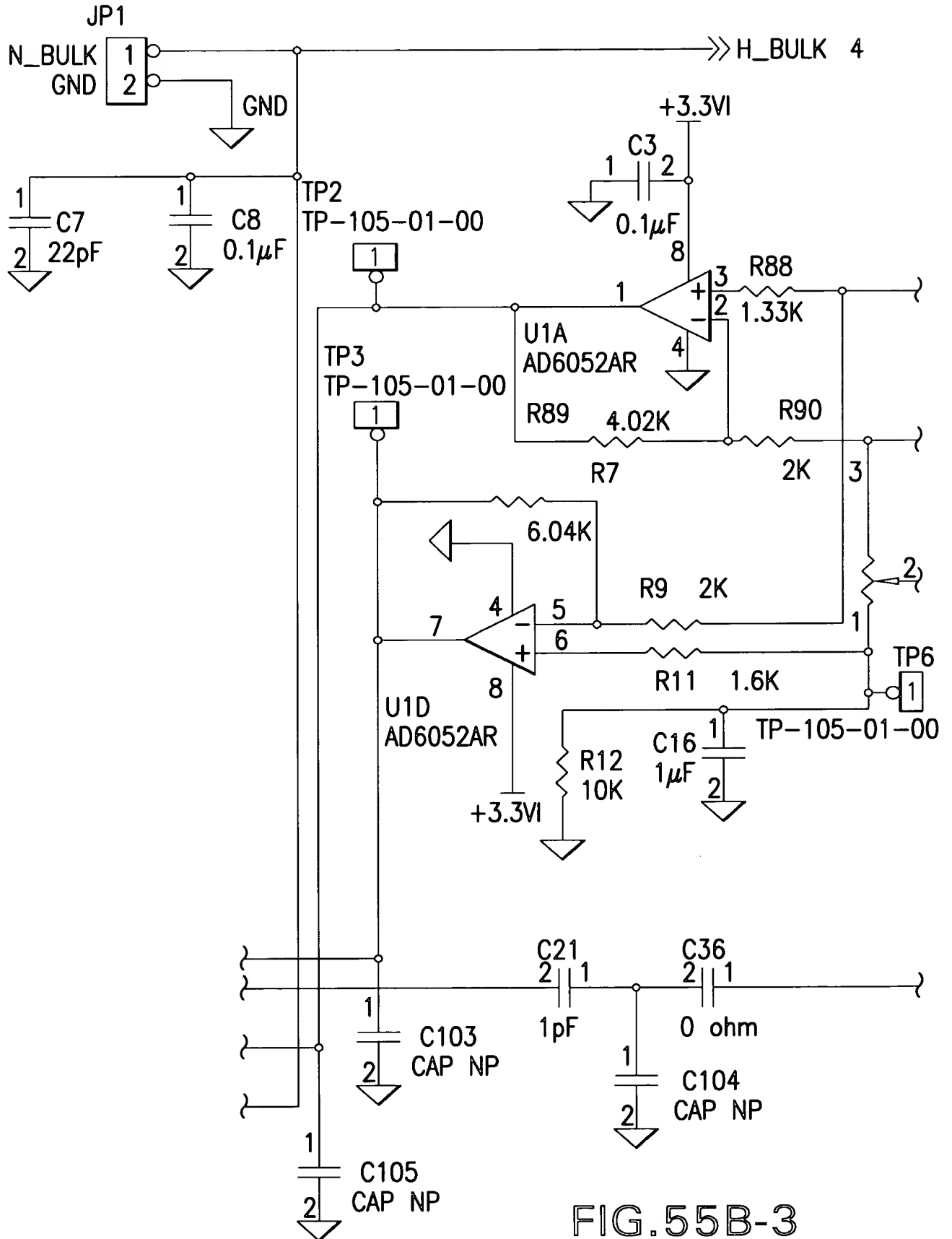


FIG. 55B-3

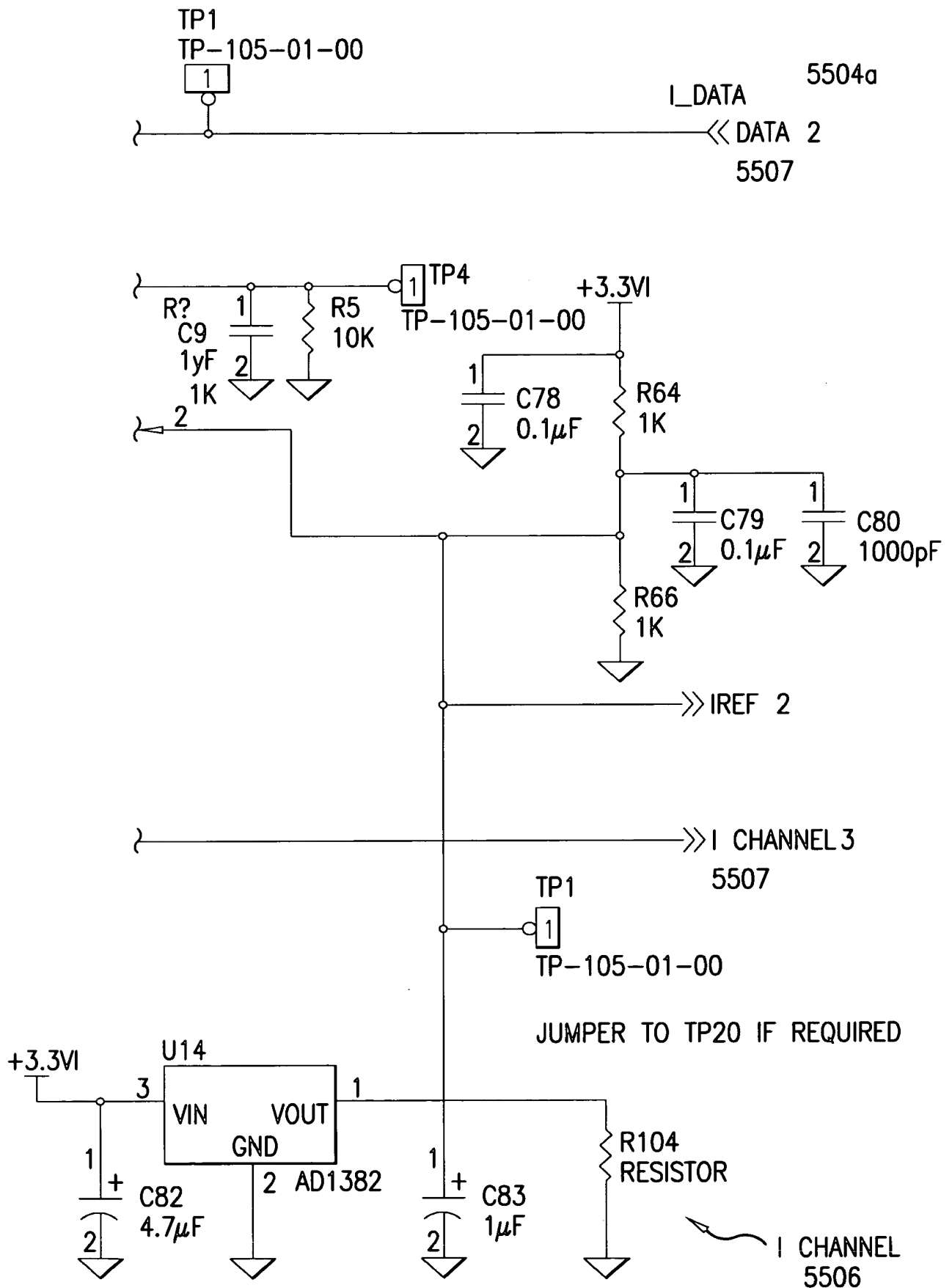


FIG. 55B-4

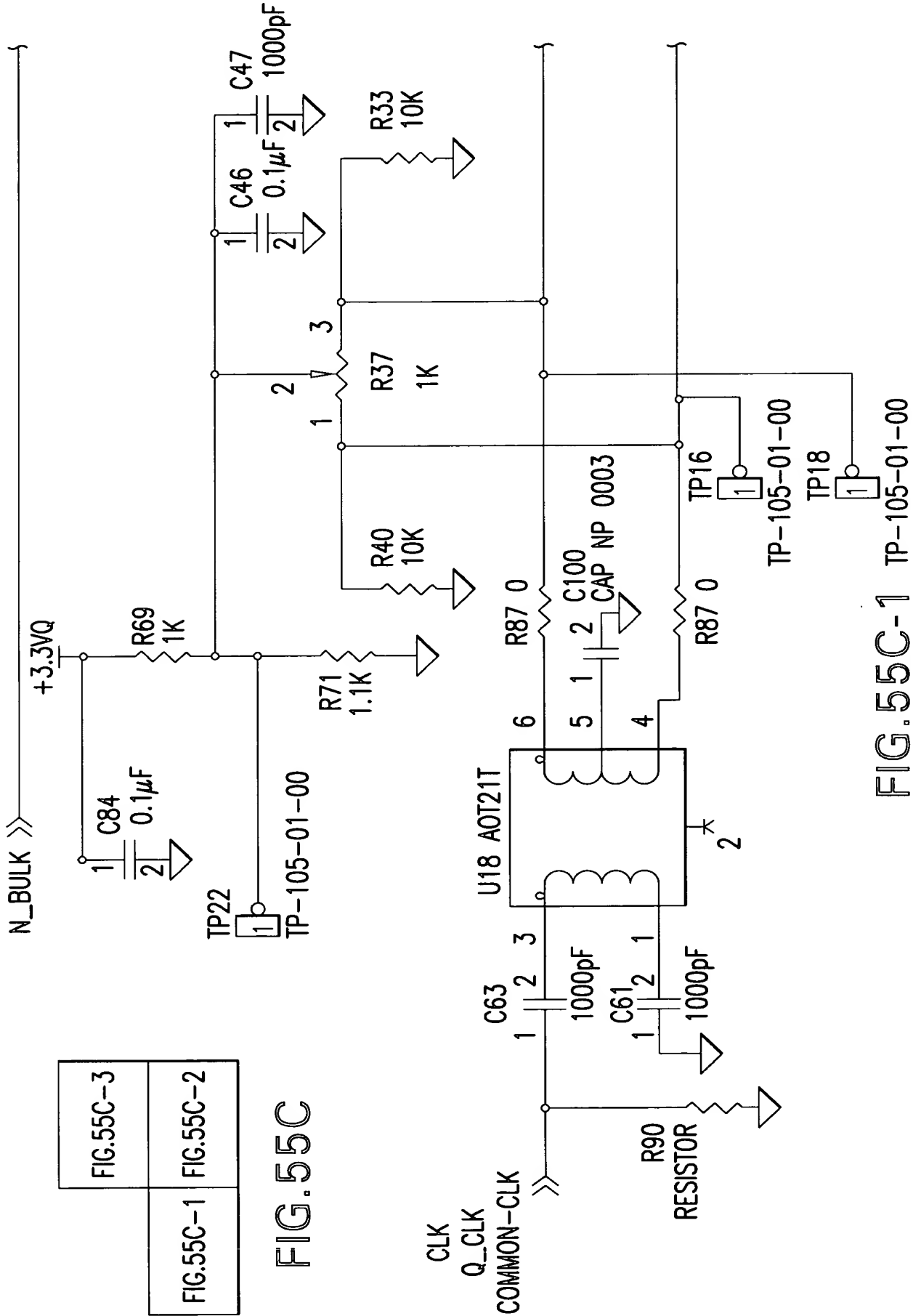


FIG. 55C

FIG. 55C-1	FIG. 55C-2
FIG. 55C-3	

FIG. 55C-1 TP-105-01-00

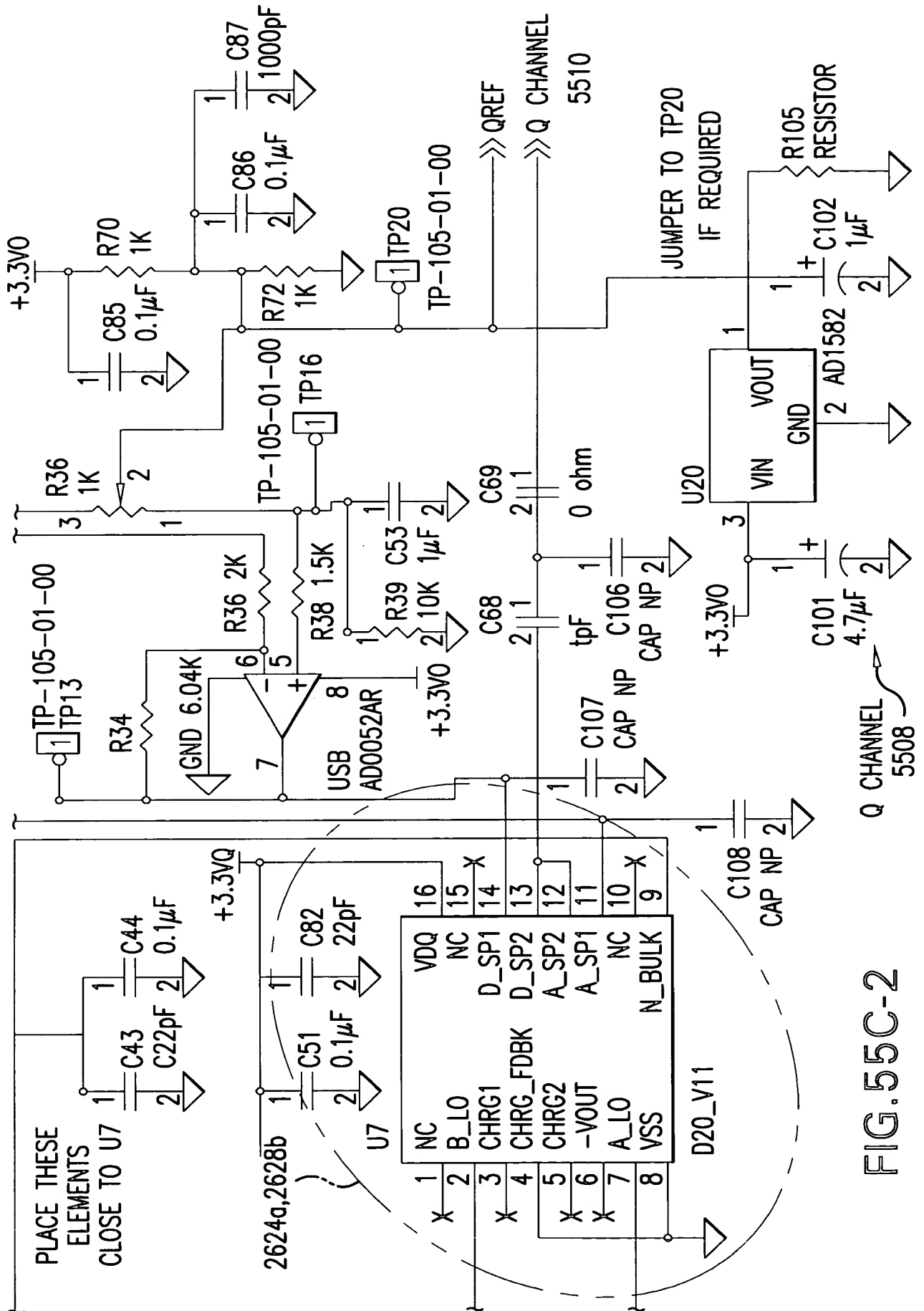


FIG. 5C-2

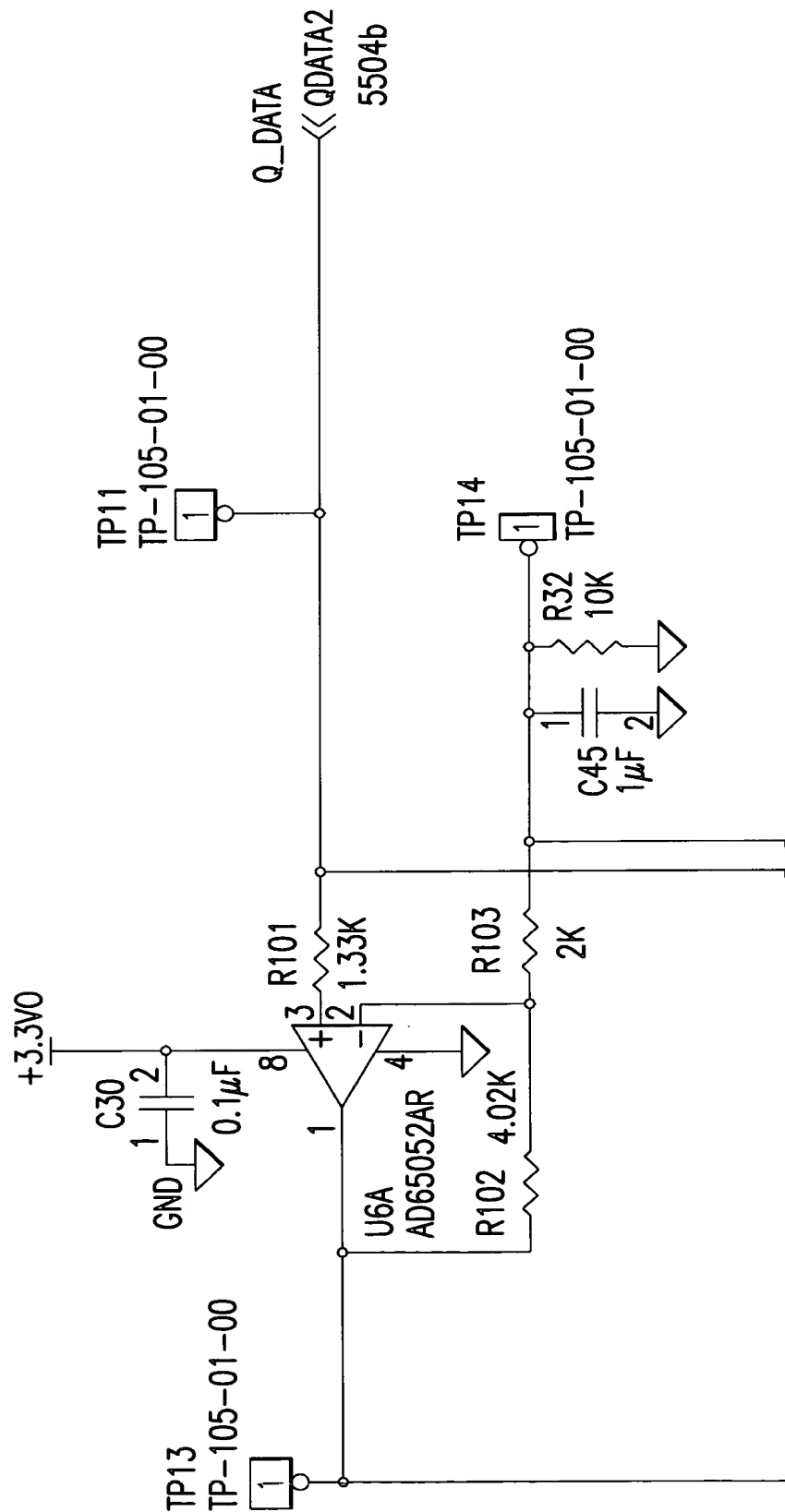
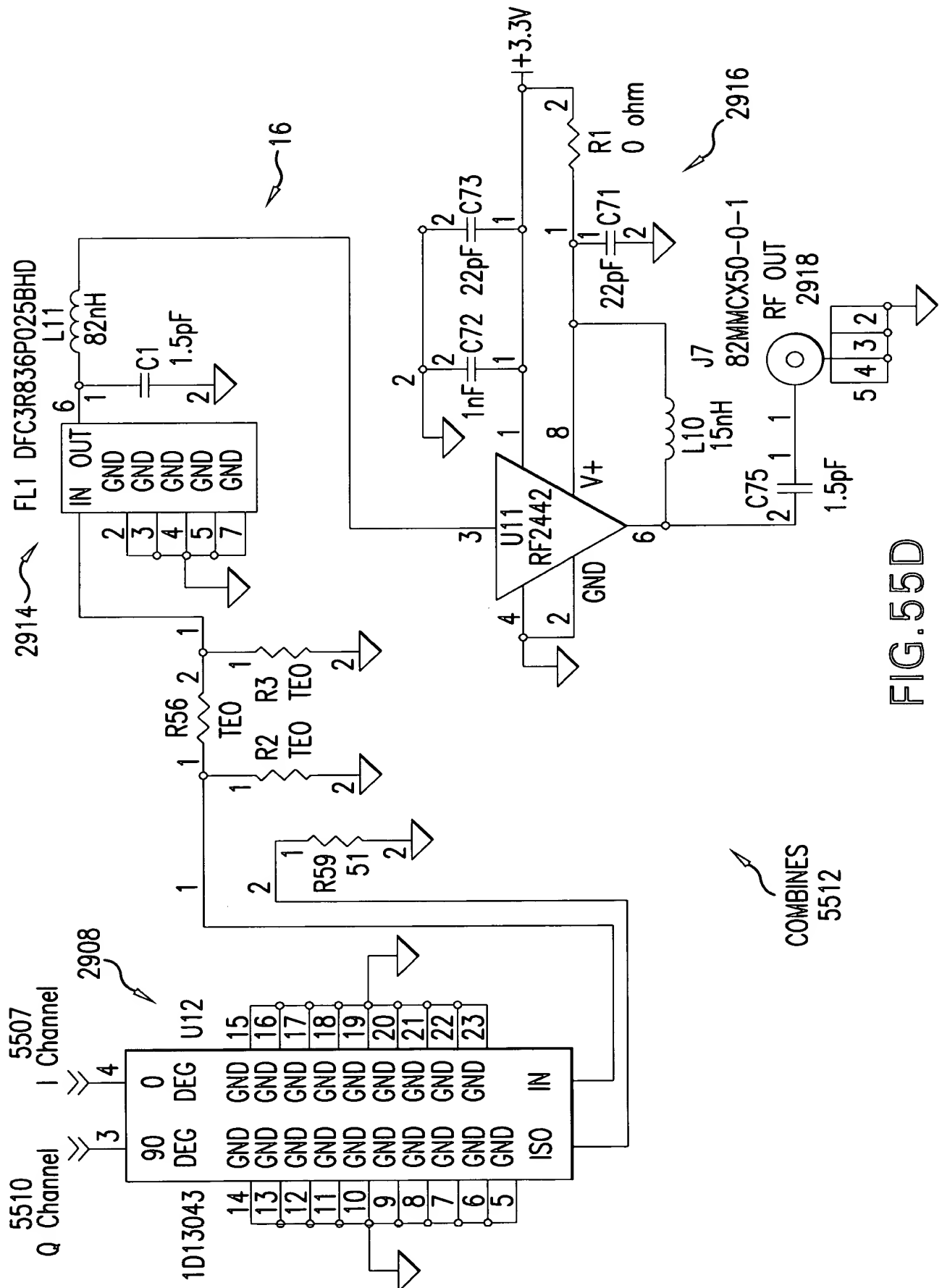
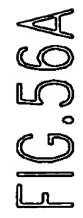


FIG. 3-55





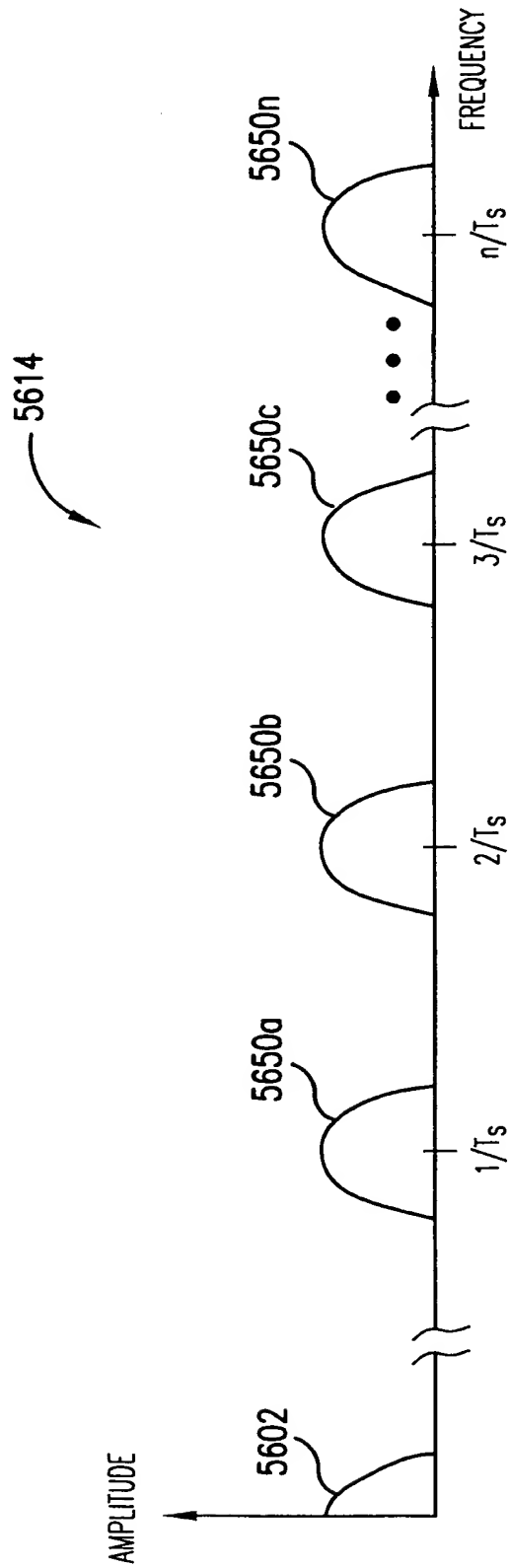


FIG. 56B

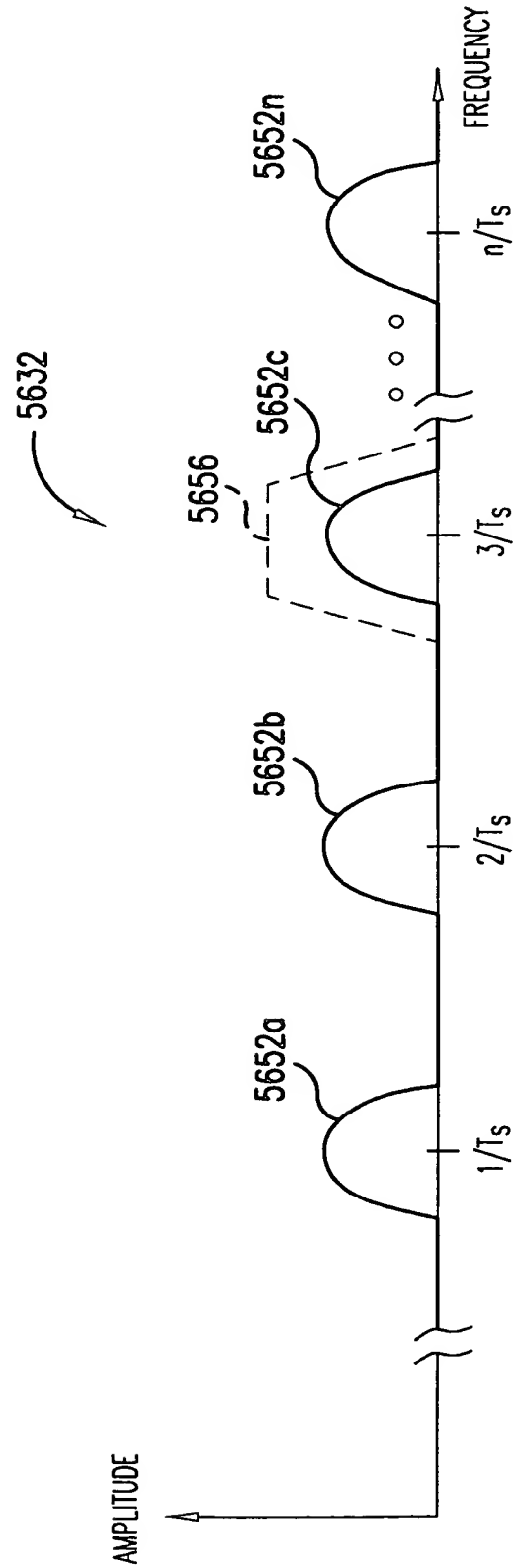


FIG. 56C

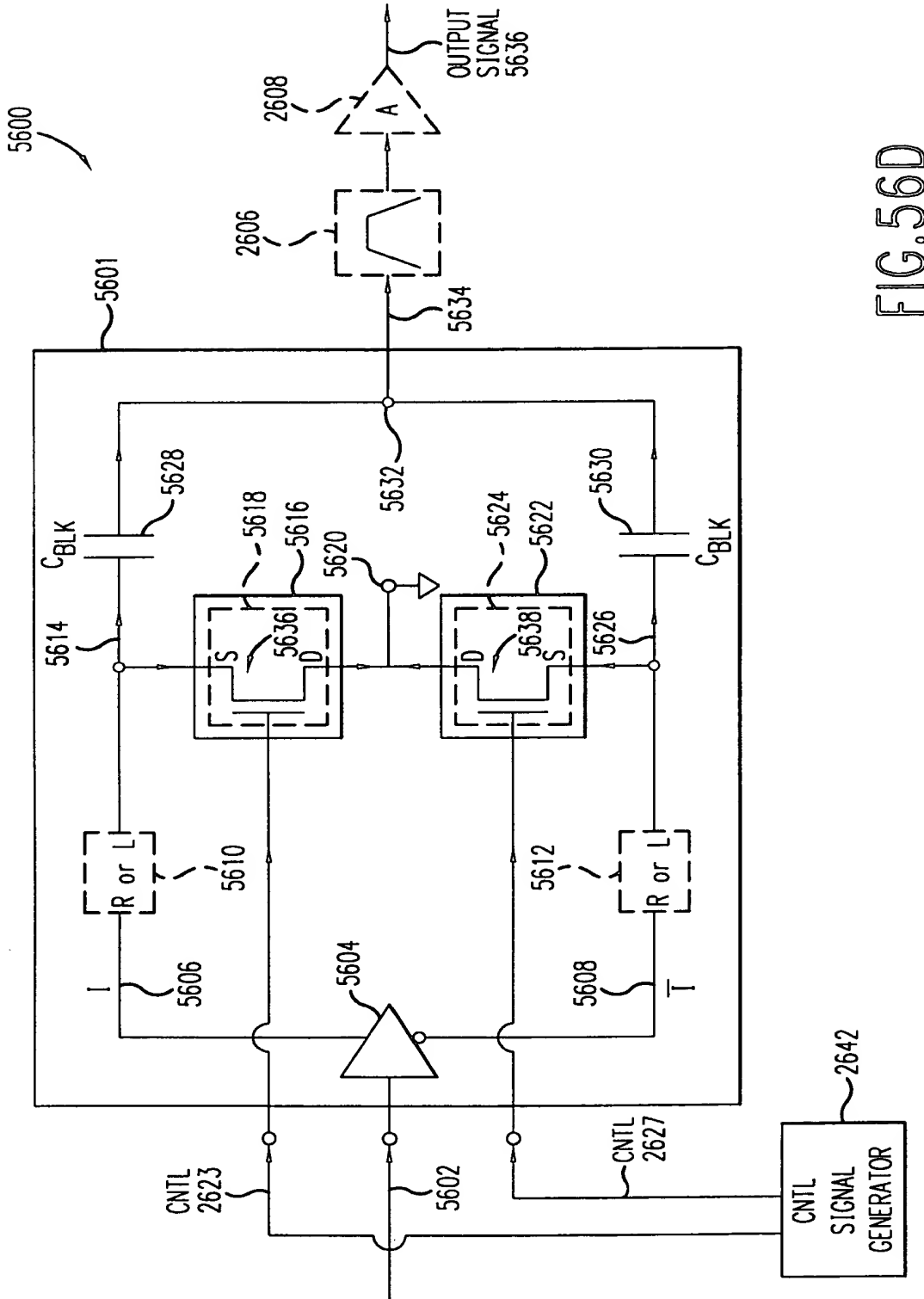


FIG. 56D

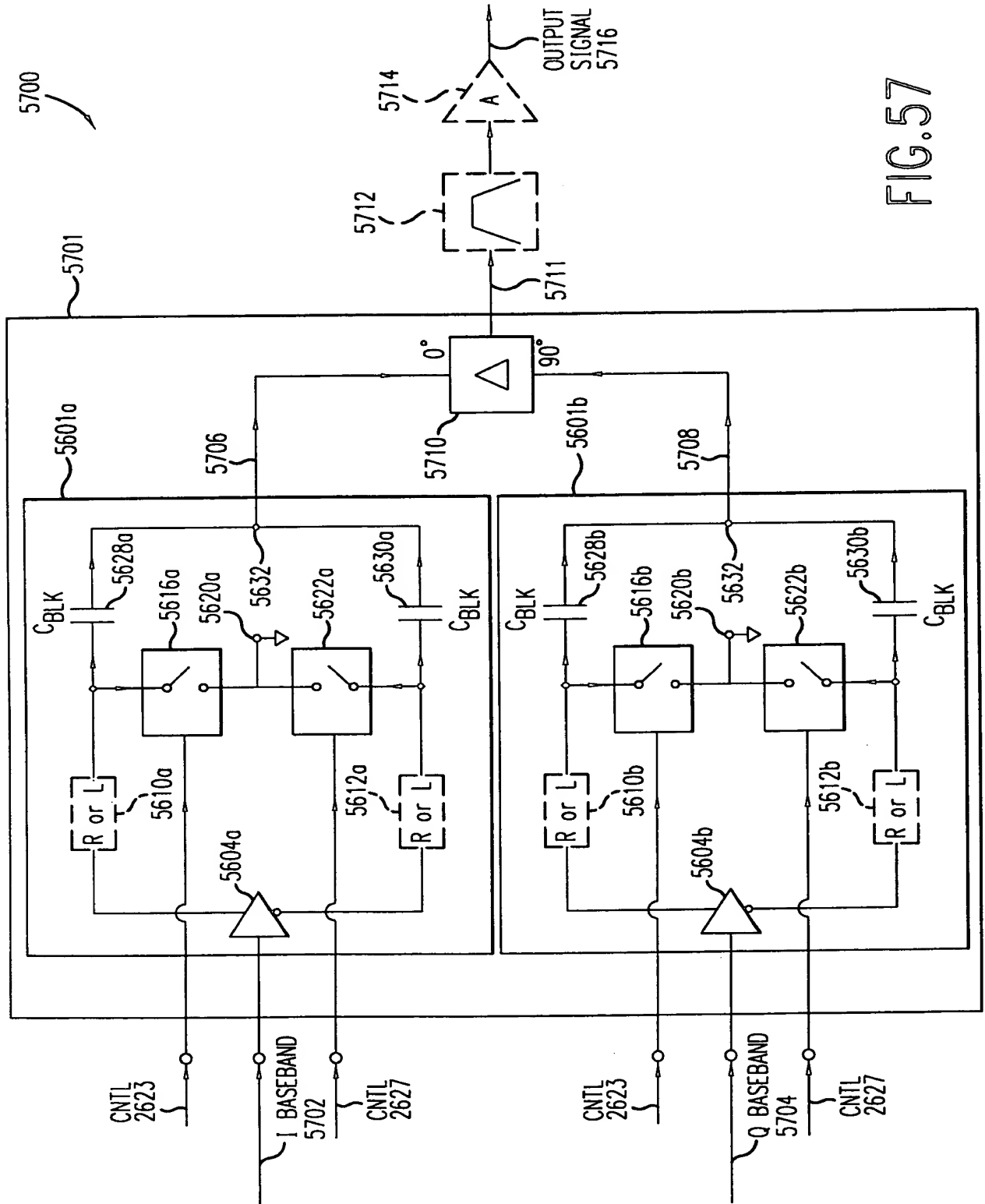


FIG. 57

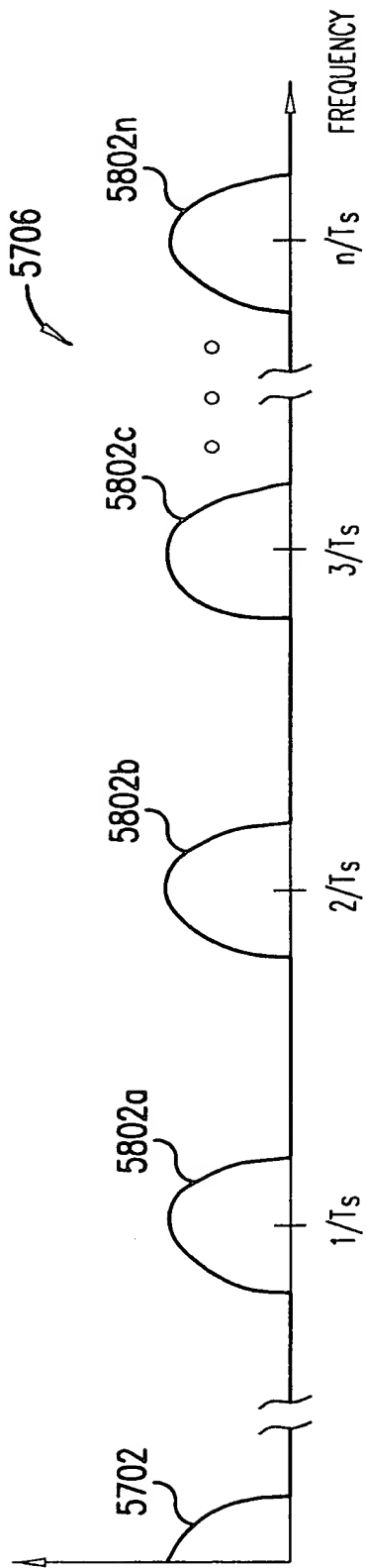


FIG. 58A

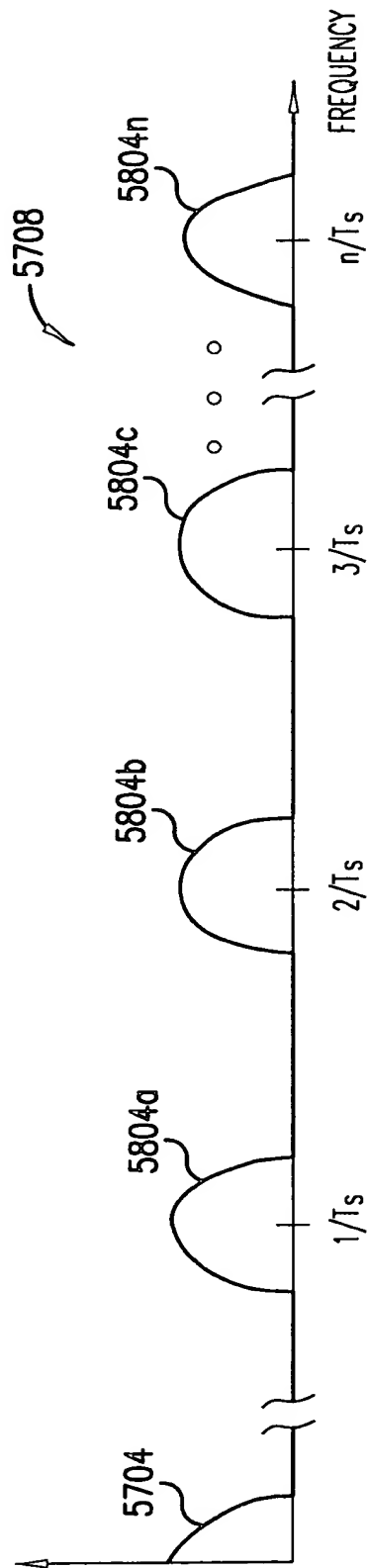


FIG. 58B

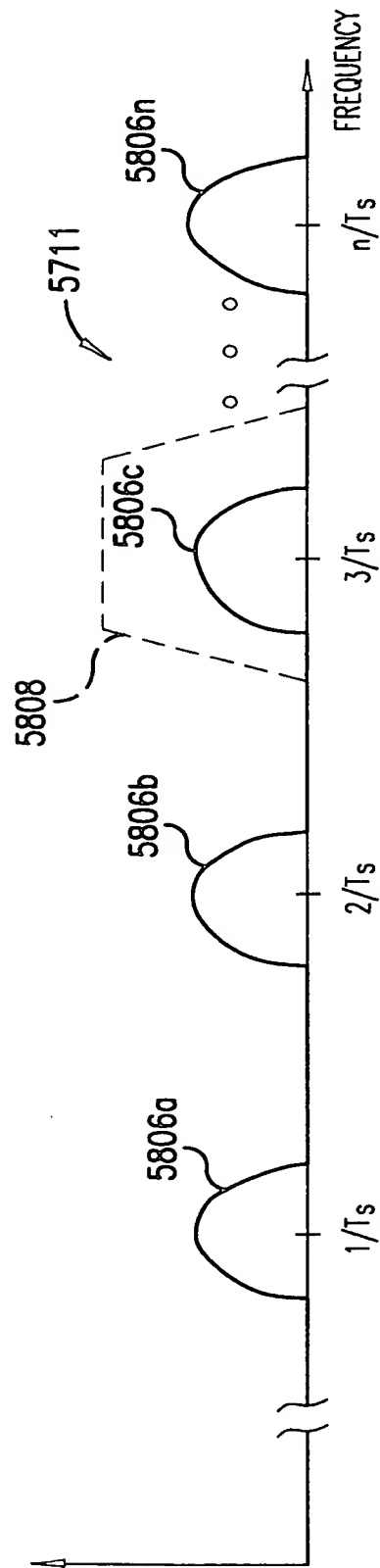


FIG. 58C

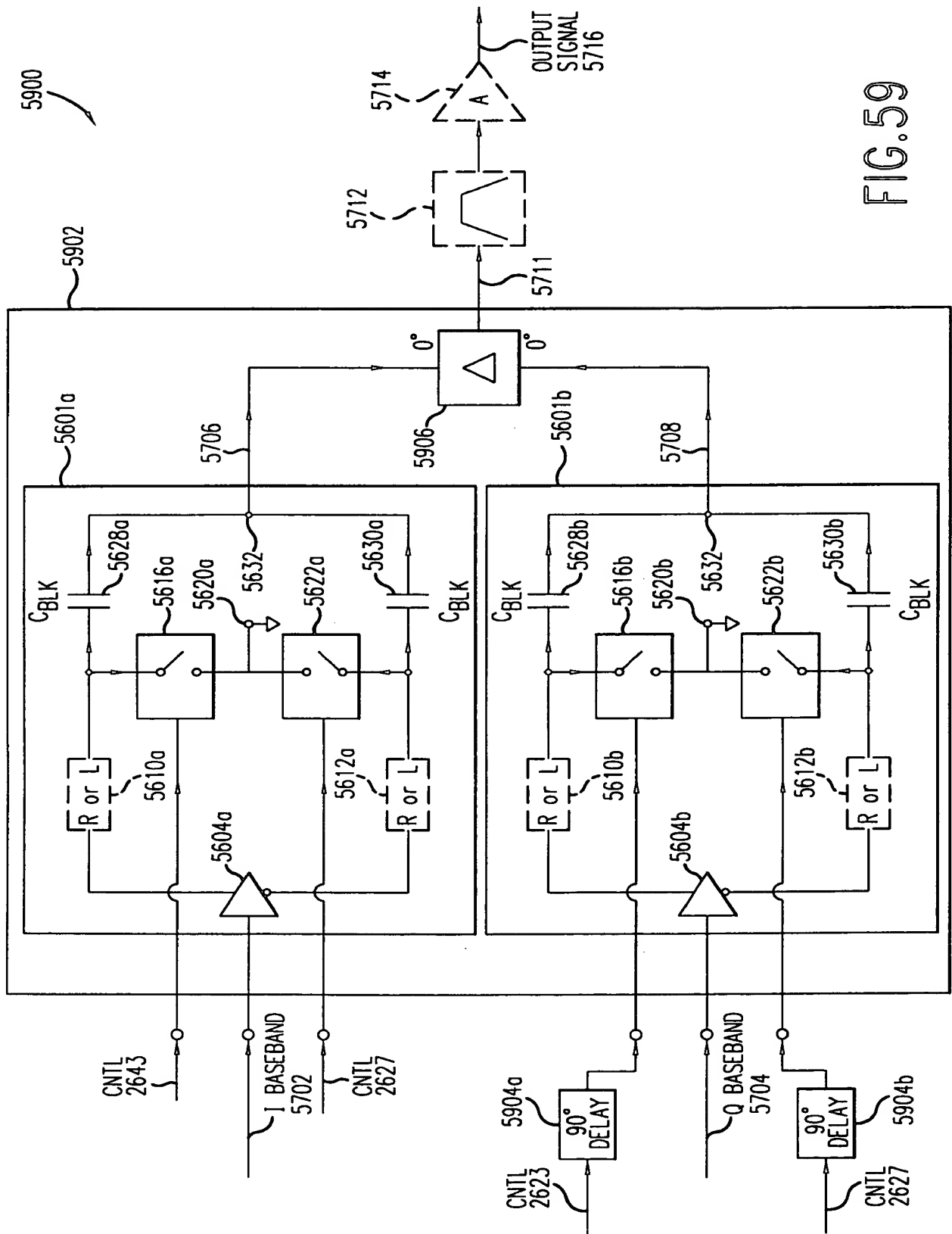


FIG. 59

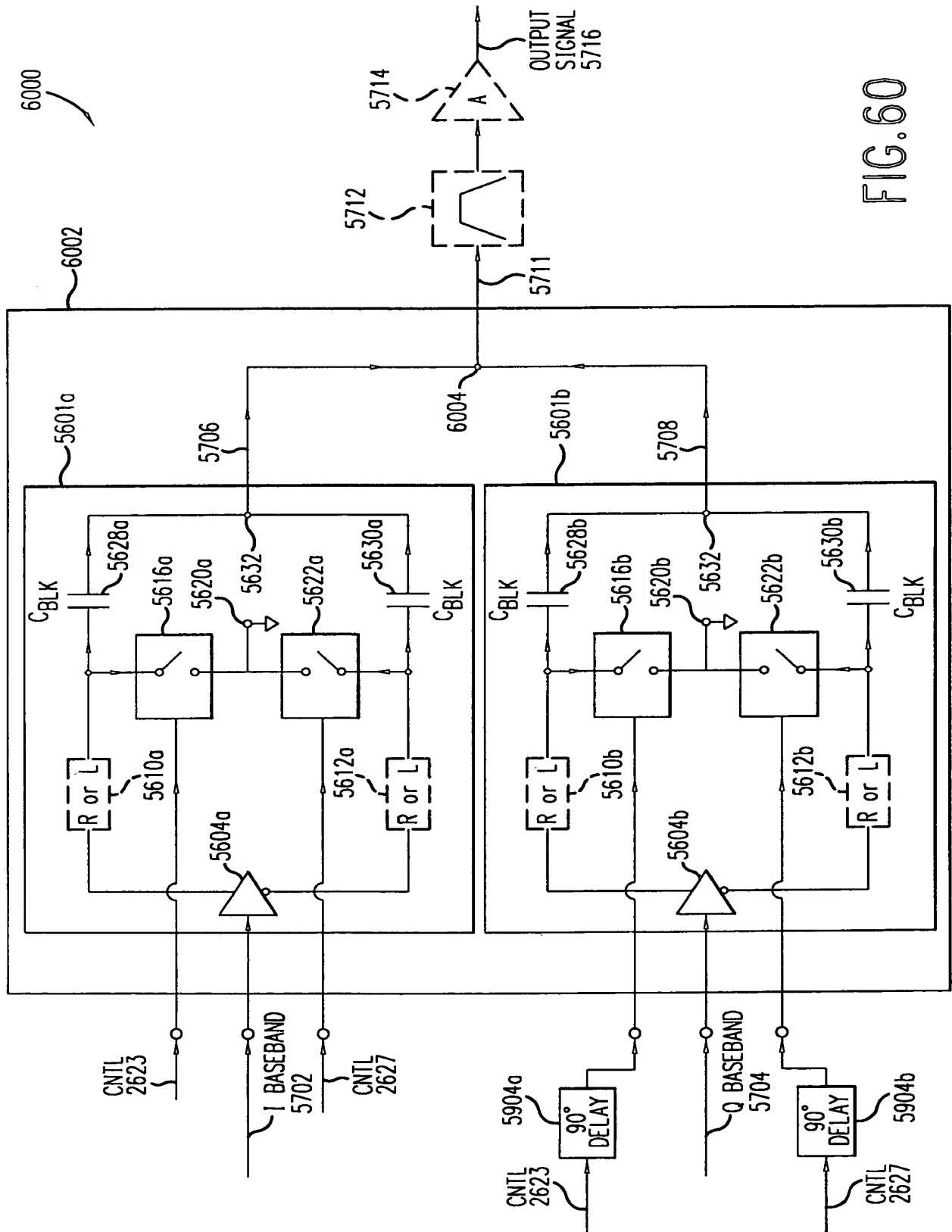


FIG. 60

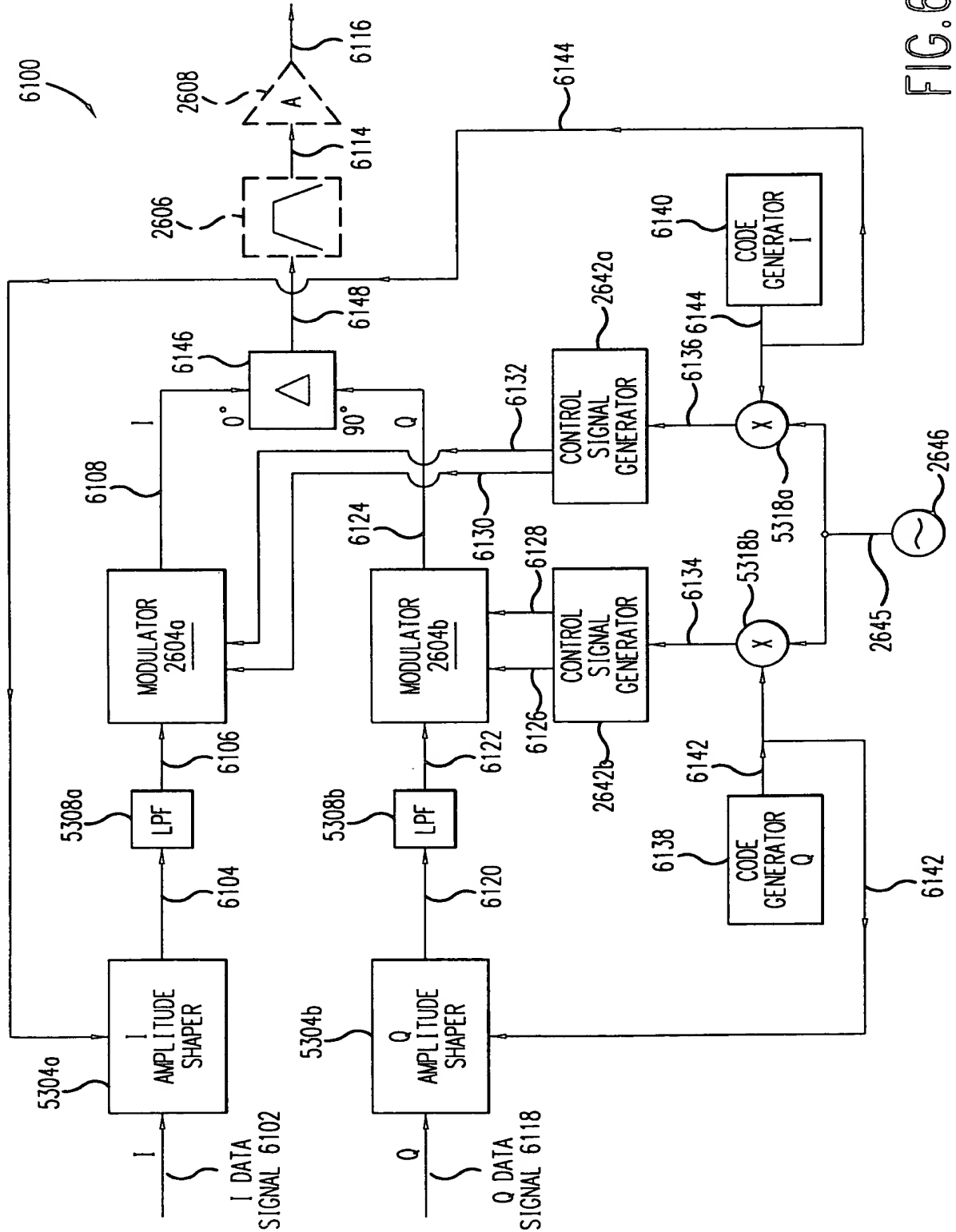


FIG. 61

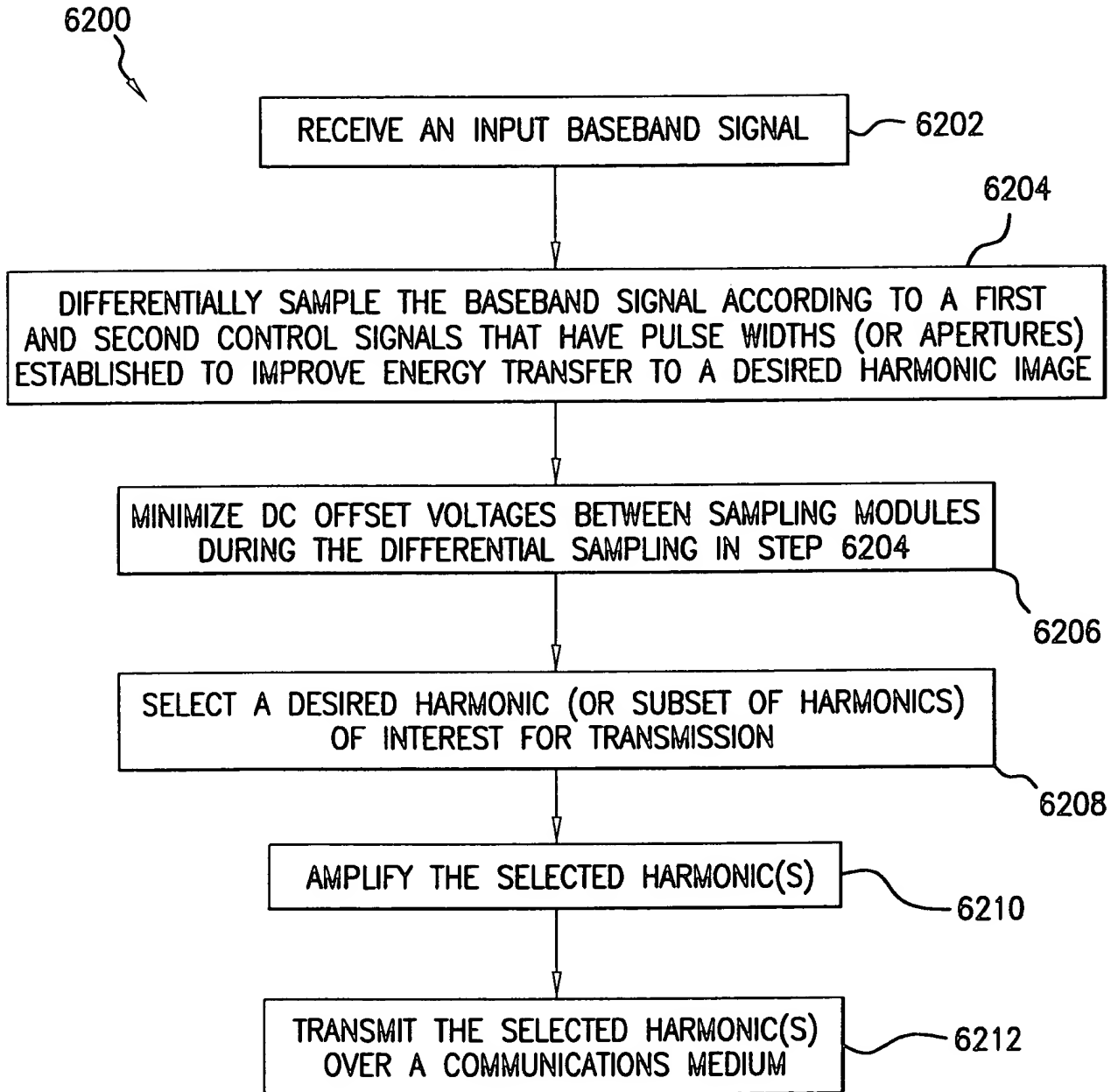


FIG.62

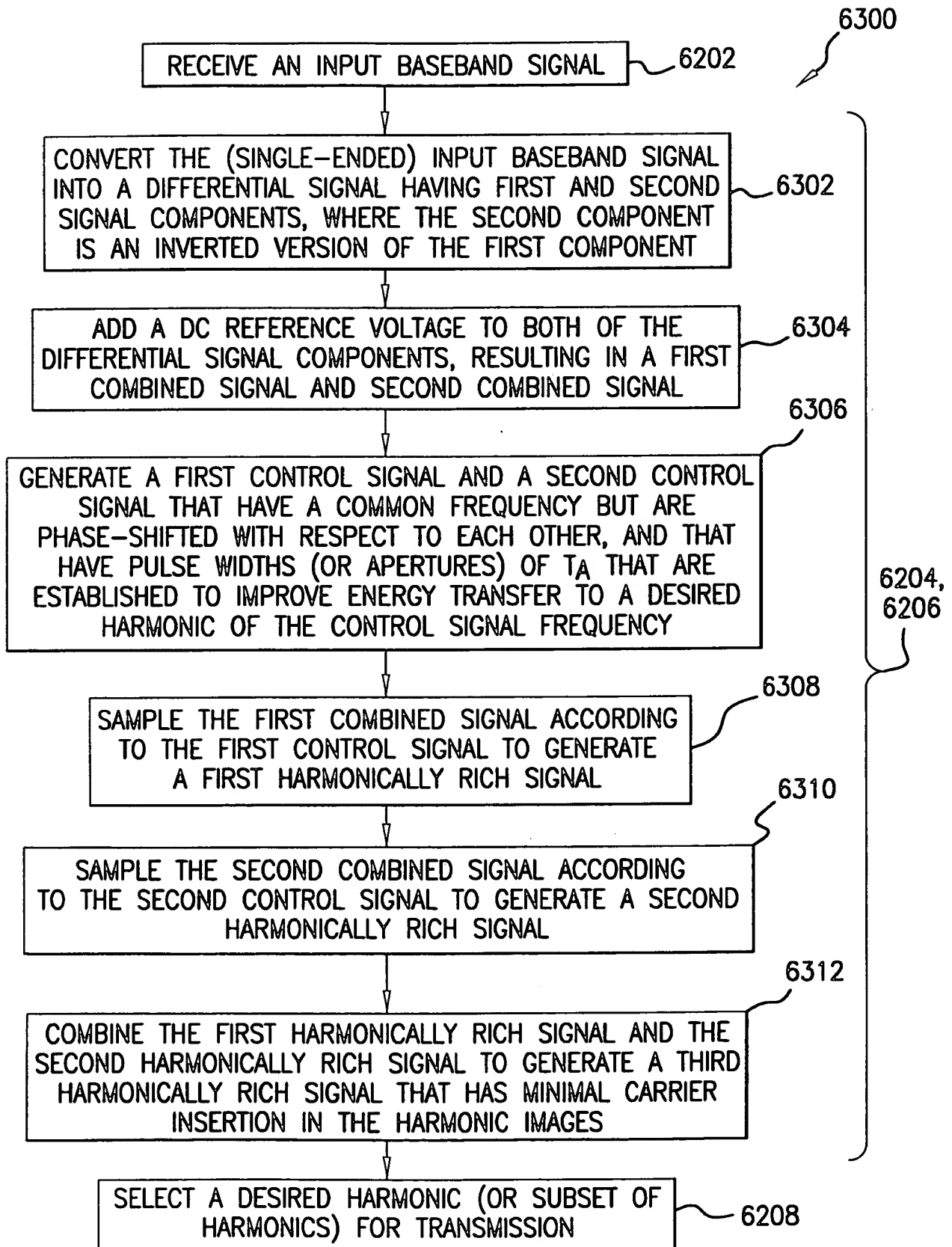


FIG.63

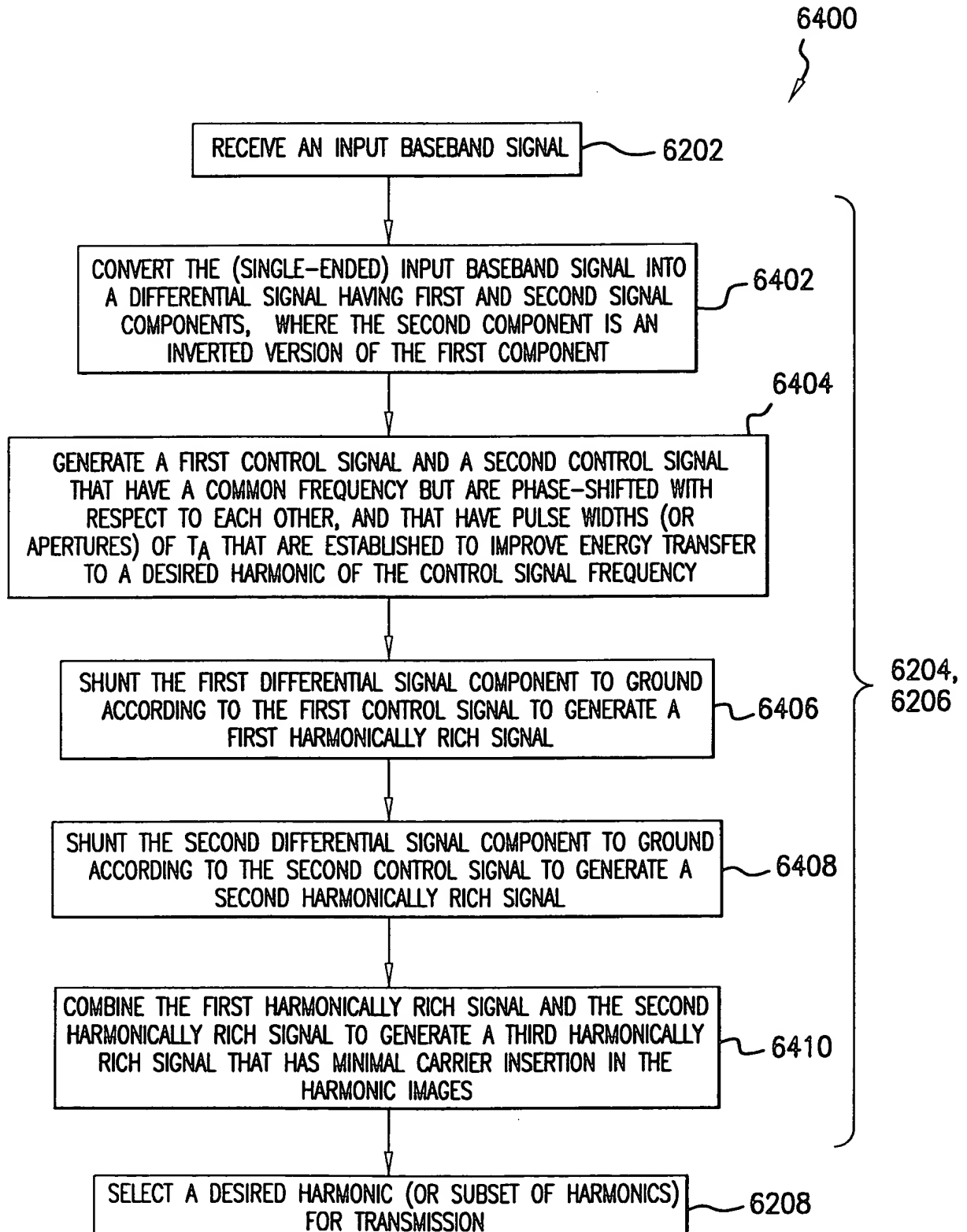


FIG.64

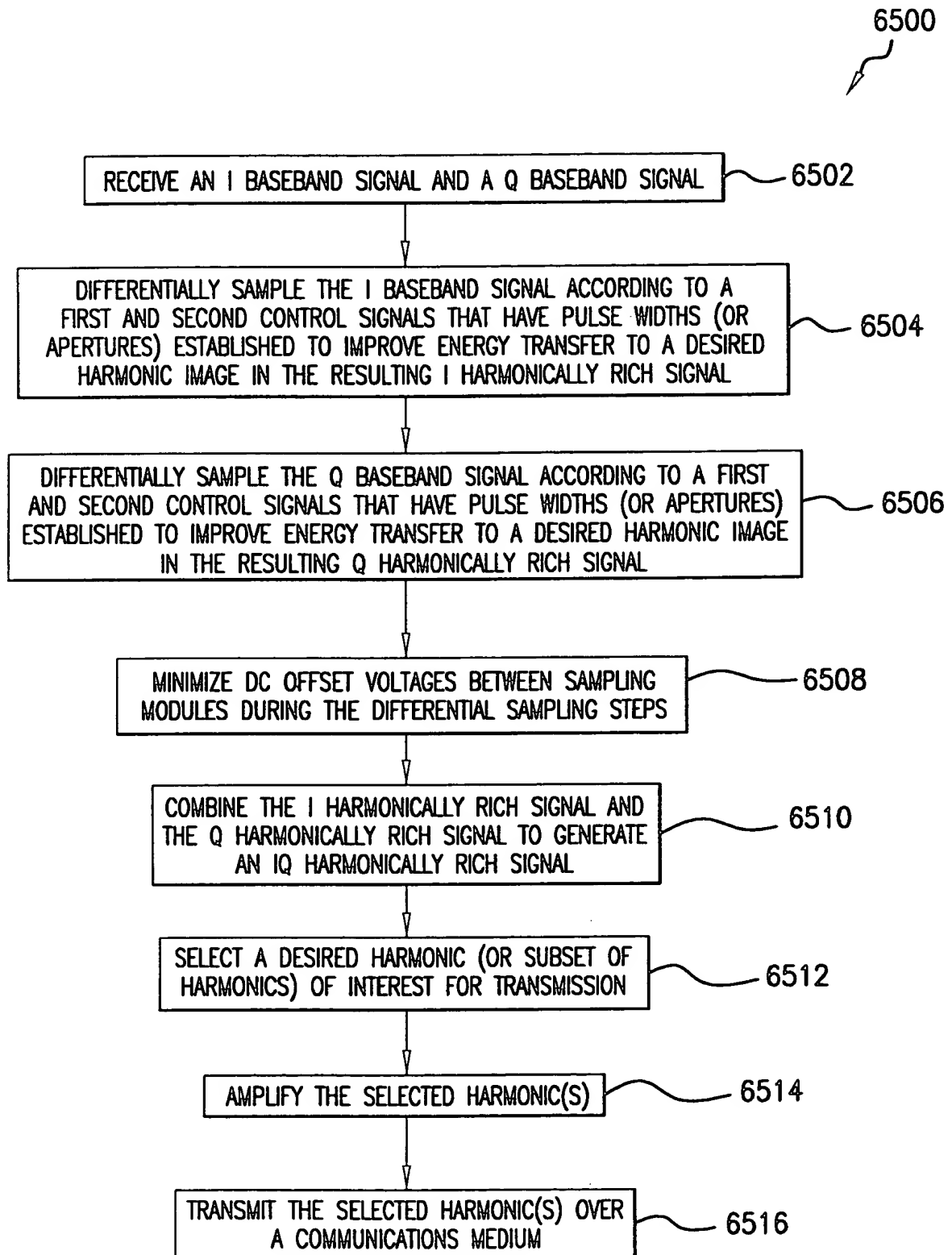


FIG.65

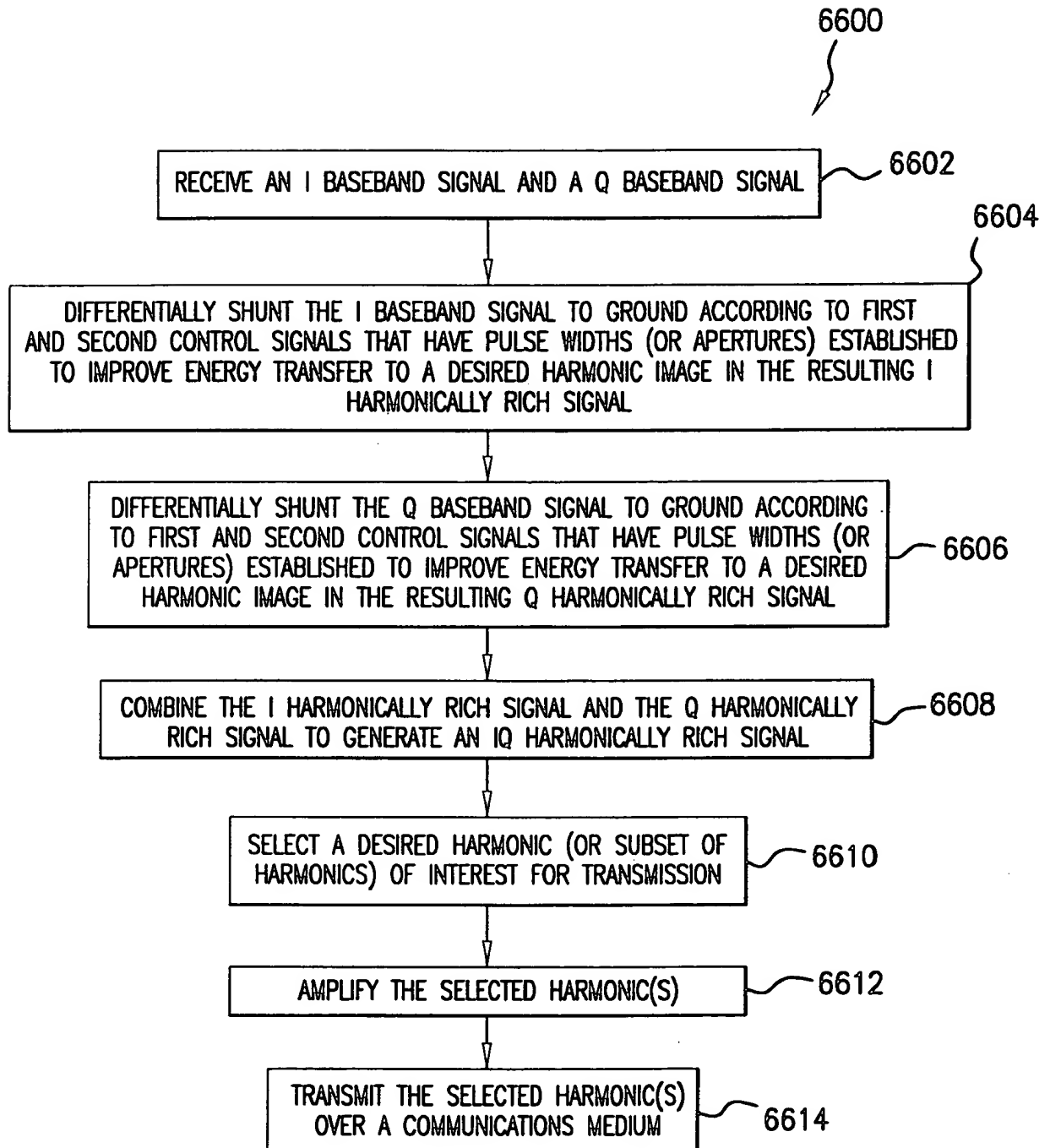


FIG. 66

6700

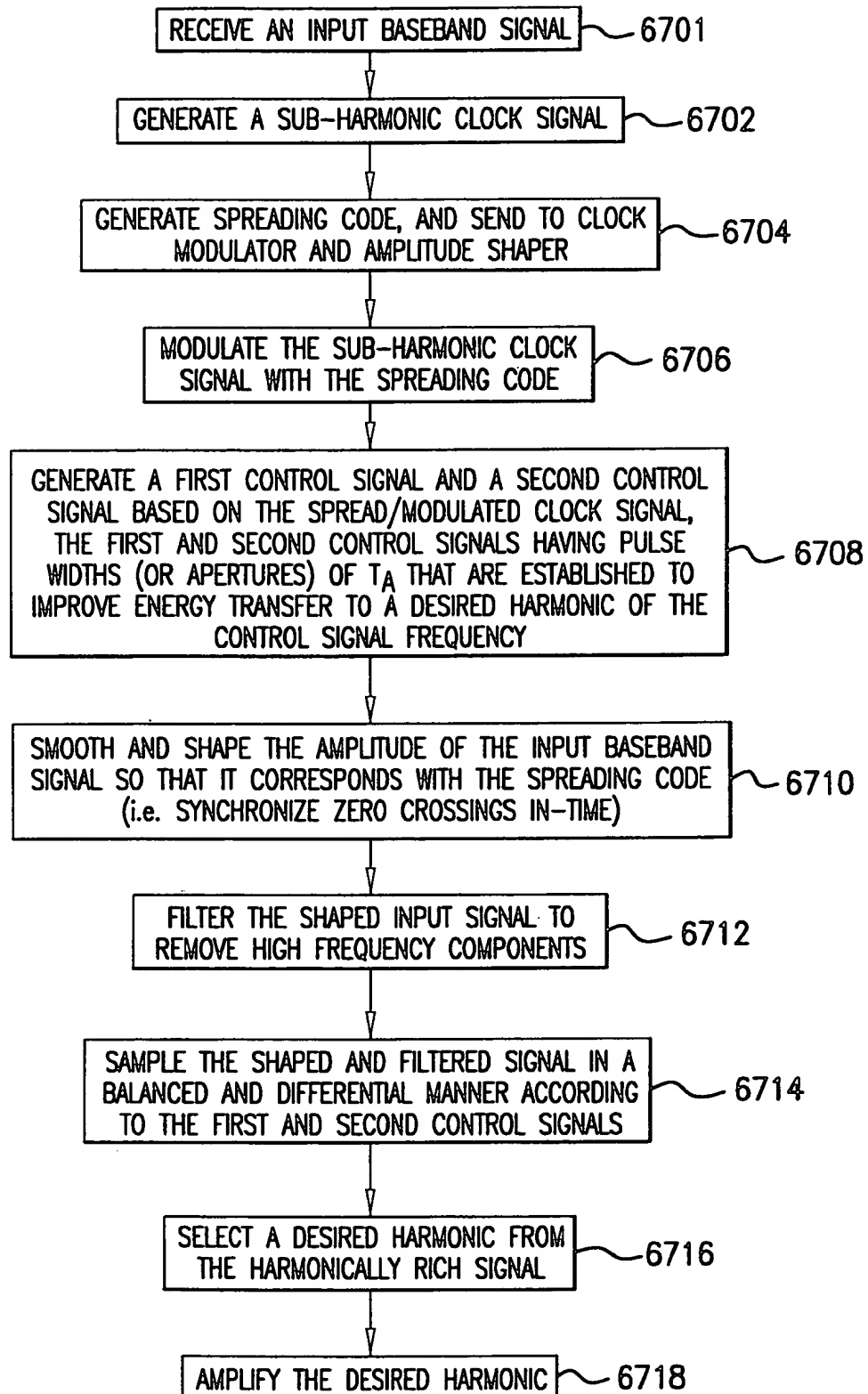


FIG. 67

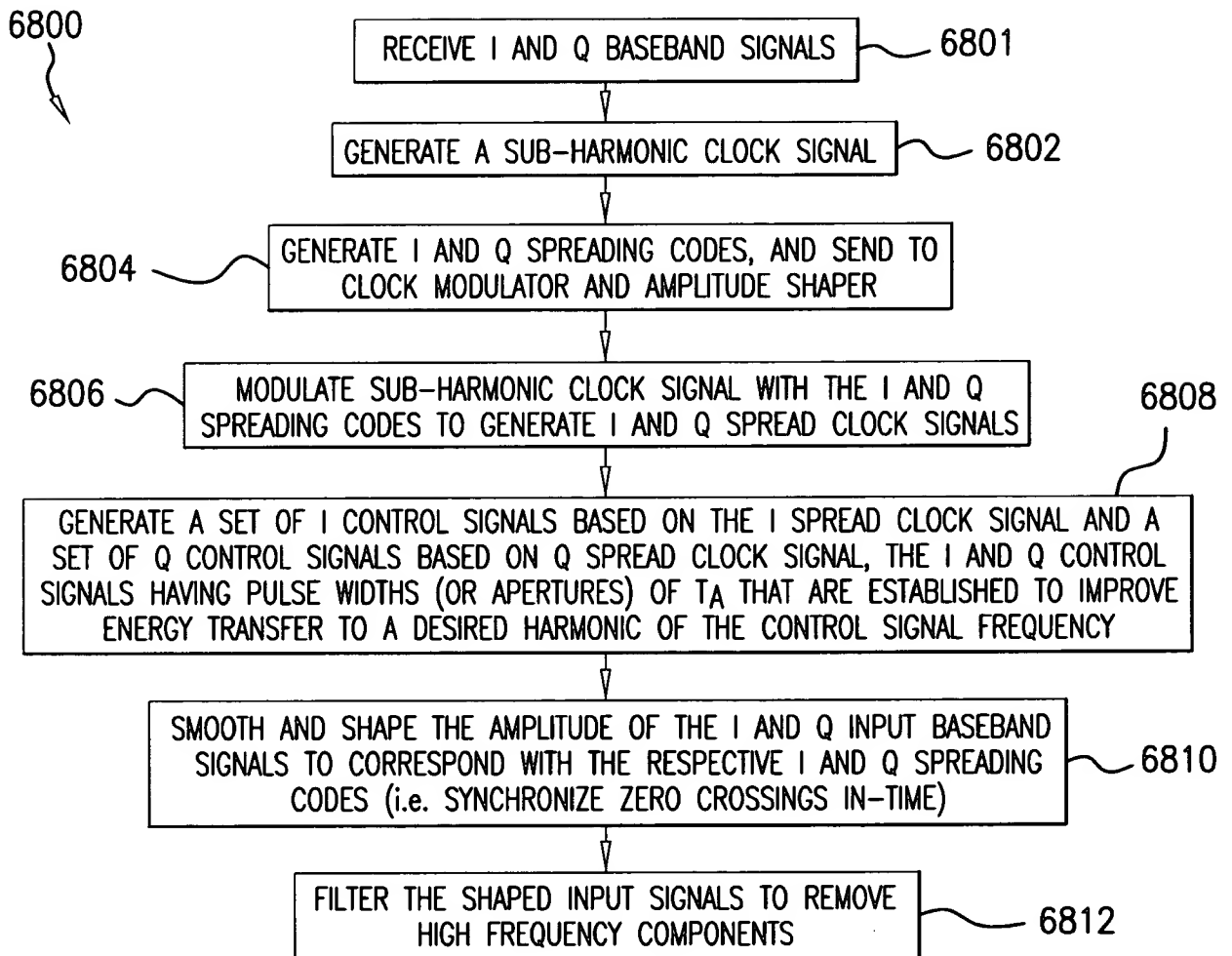


FIG. 68A

6800
(CONTINUED)

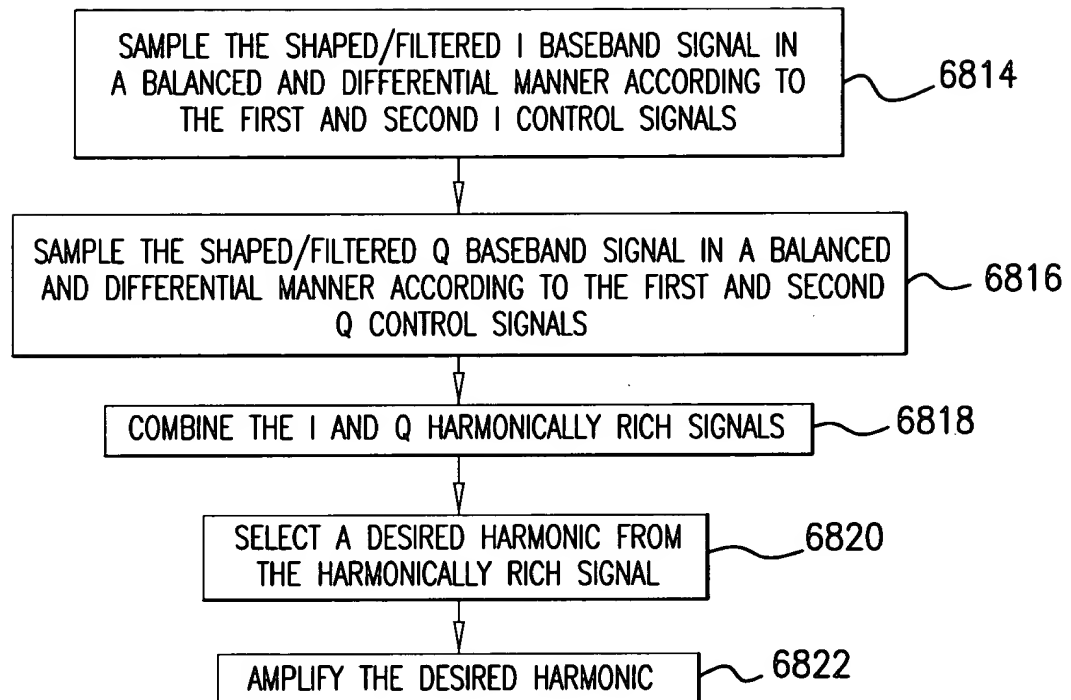


FIG. 68B

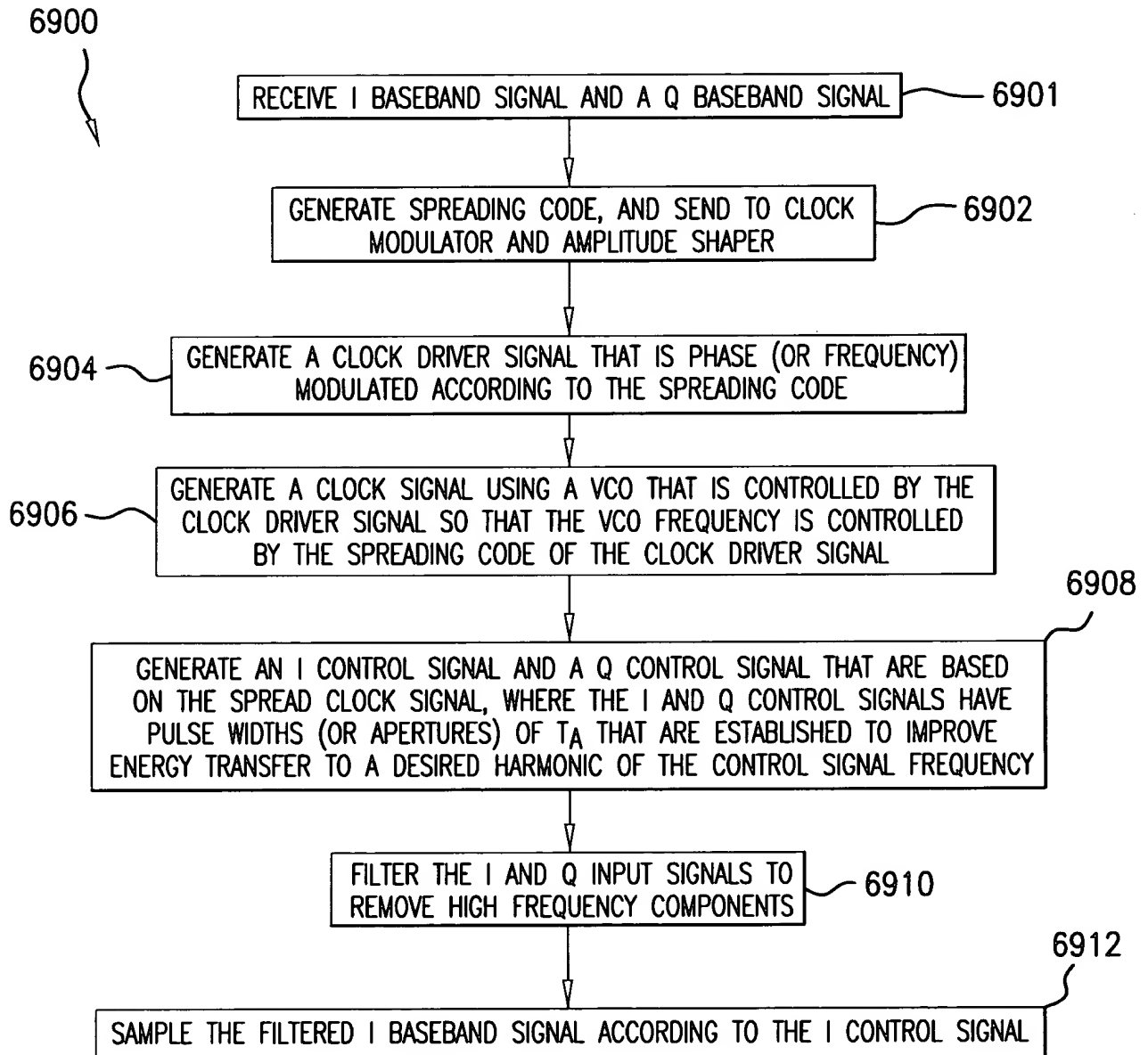


FIG. 69A

6900
(CONTINUED)

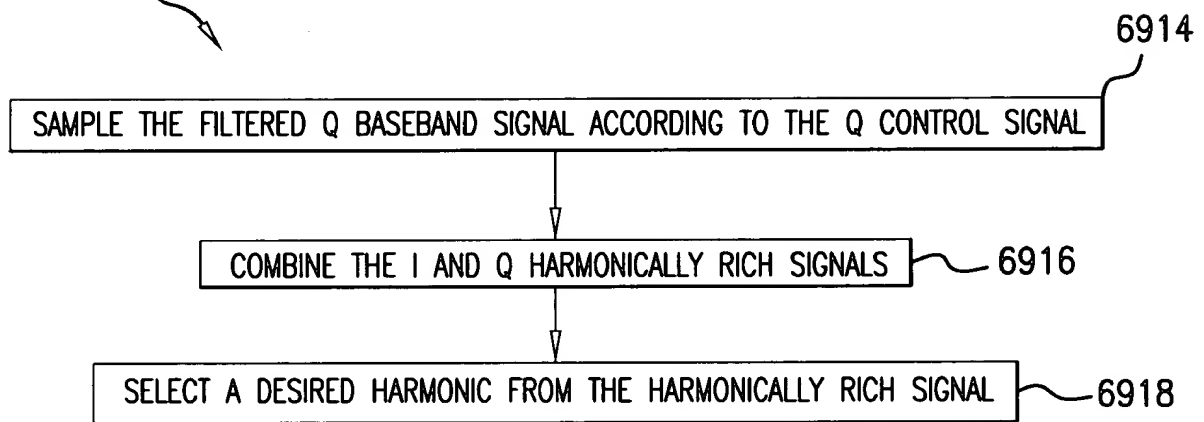


FIG.69B

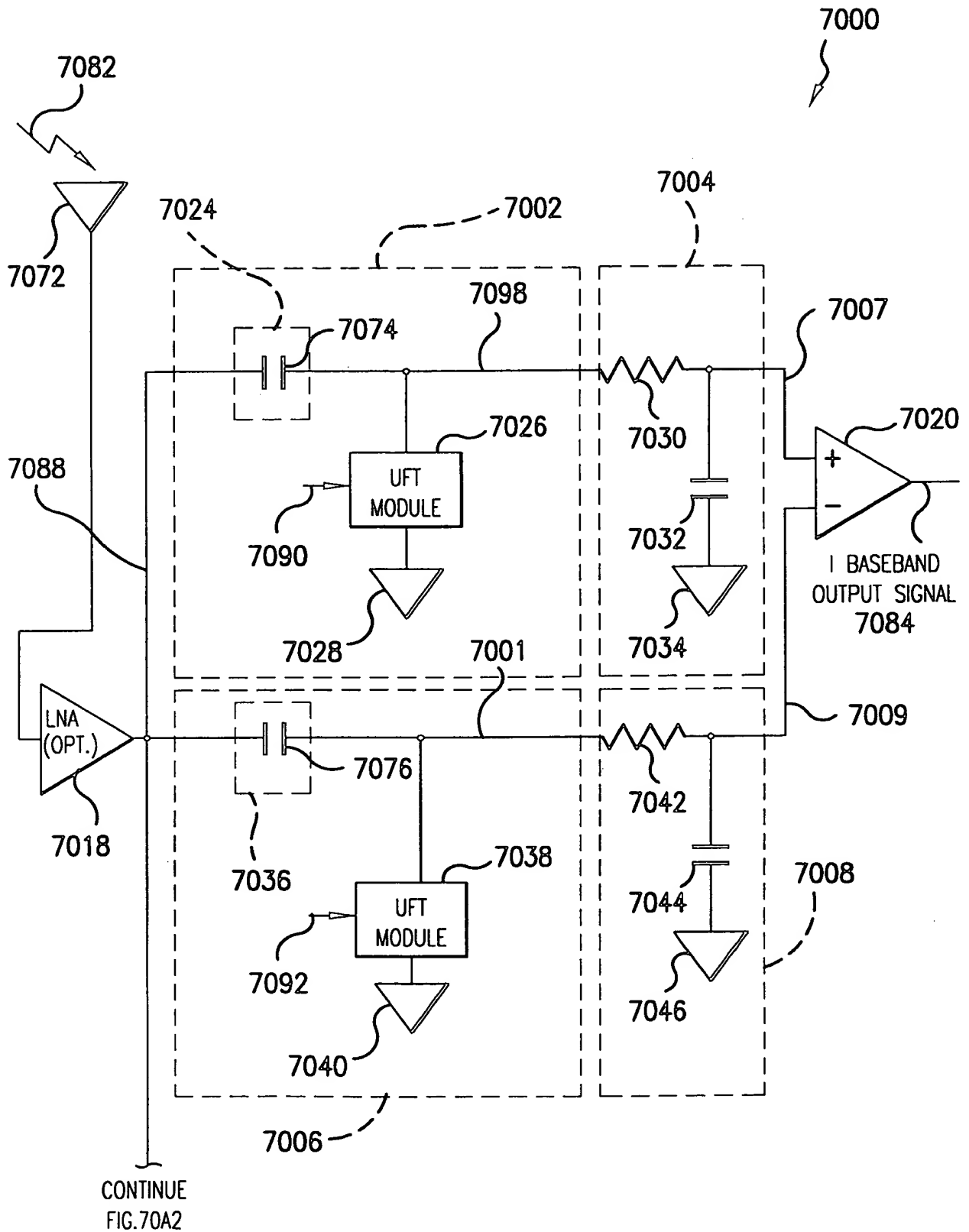
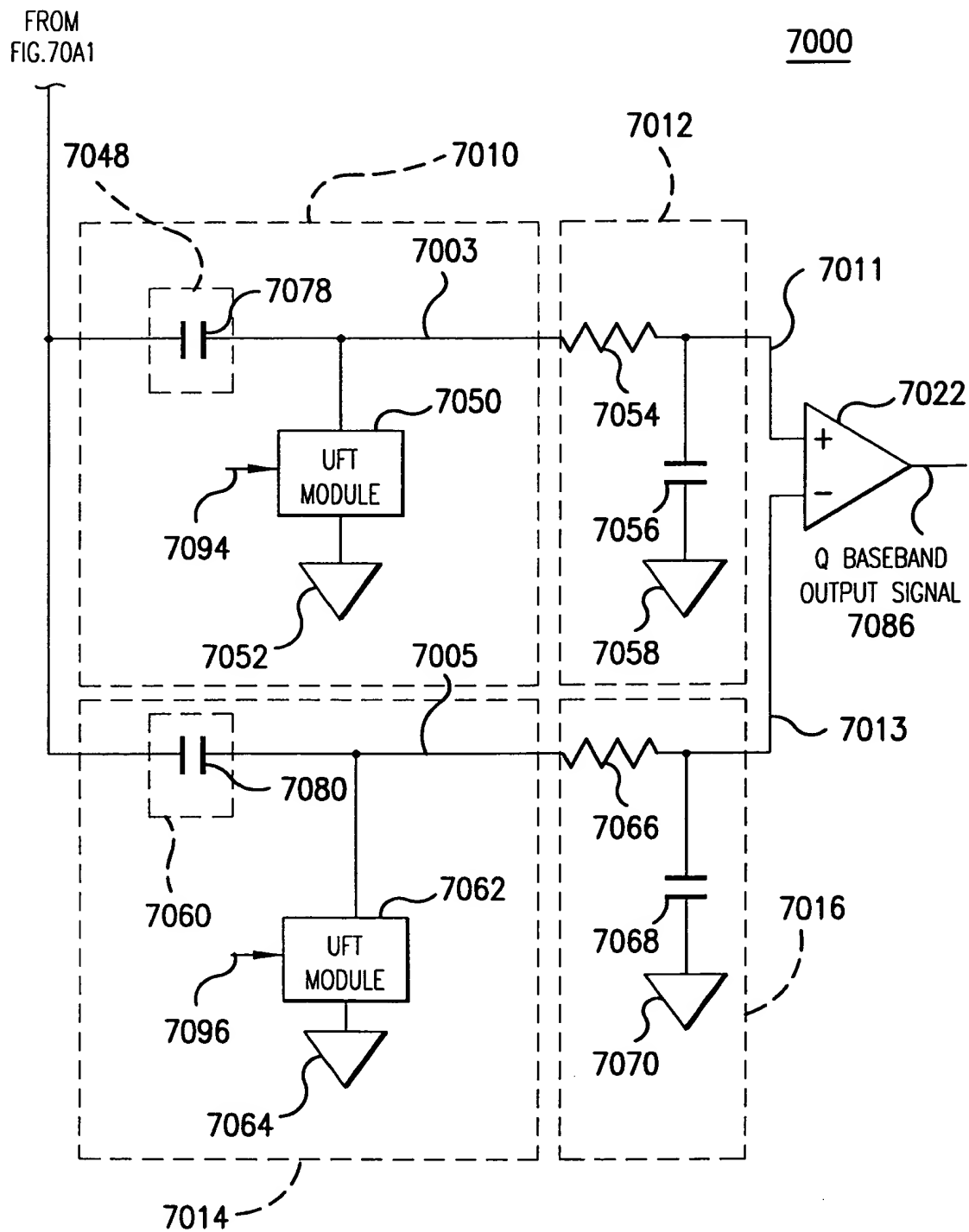


FIG. 70A1



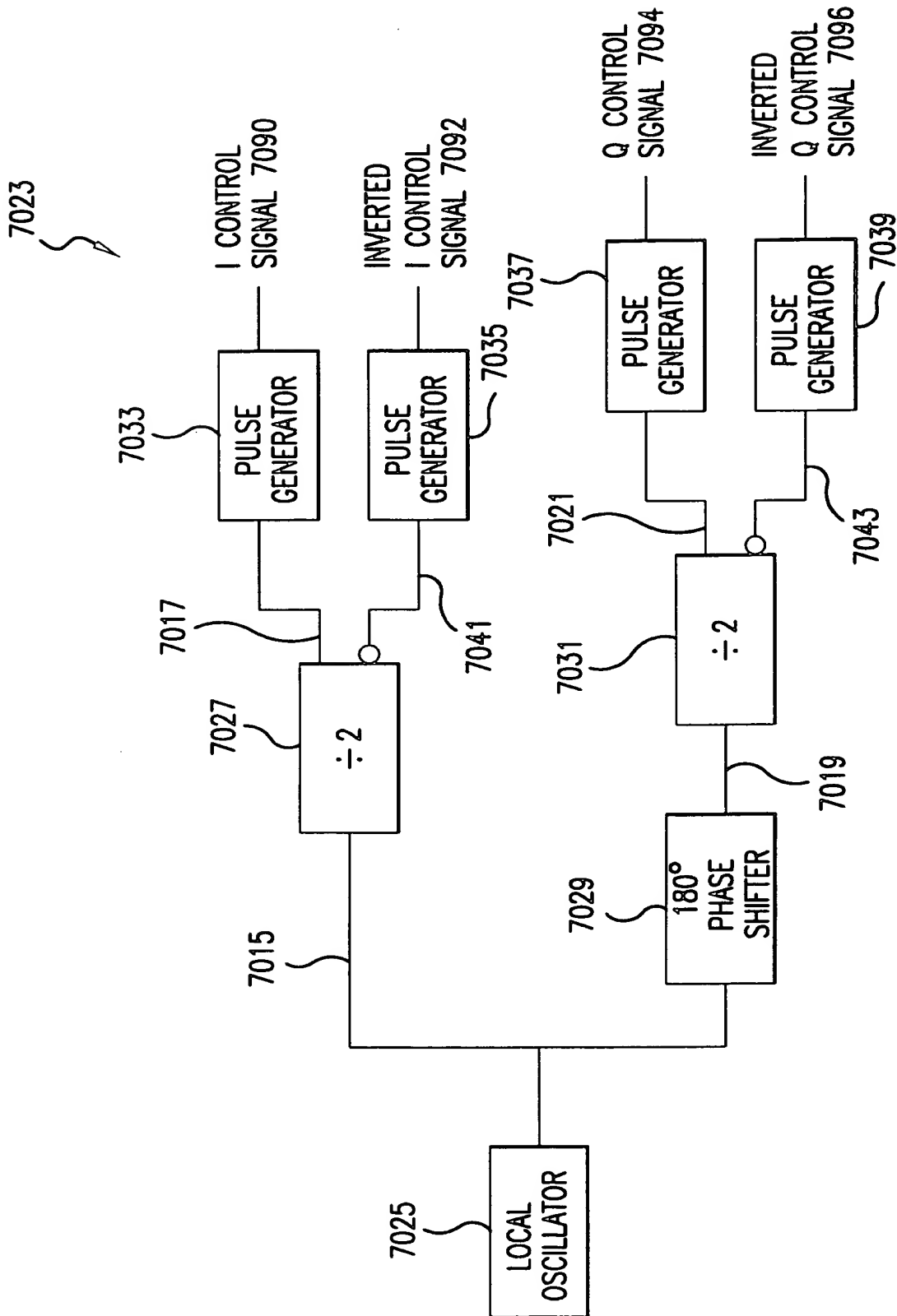


FIG. 70B

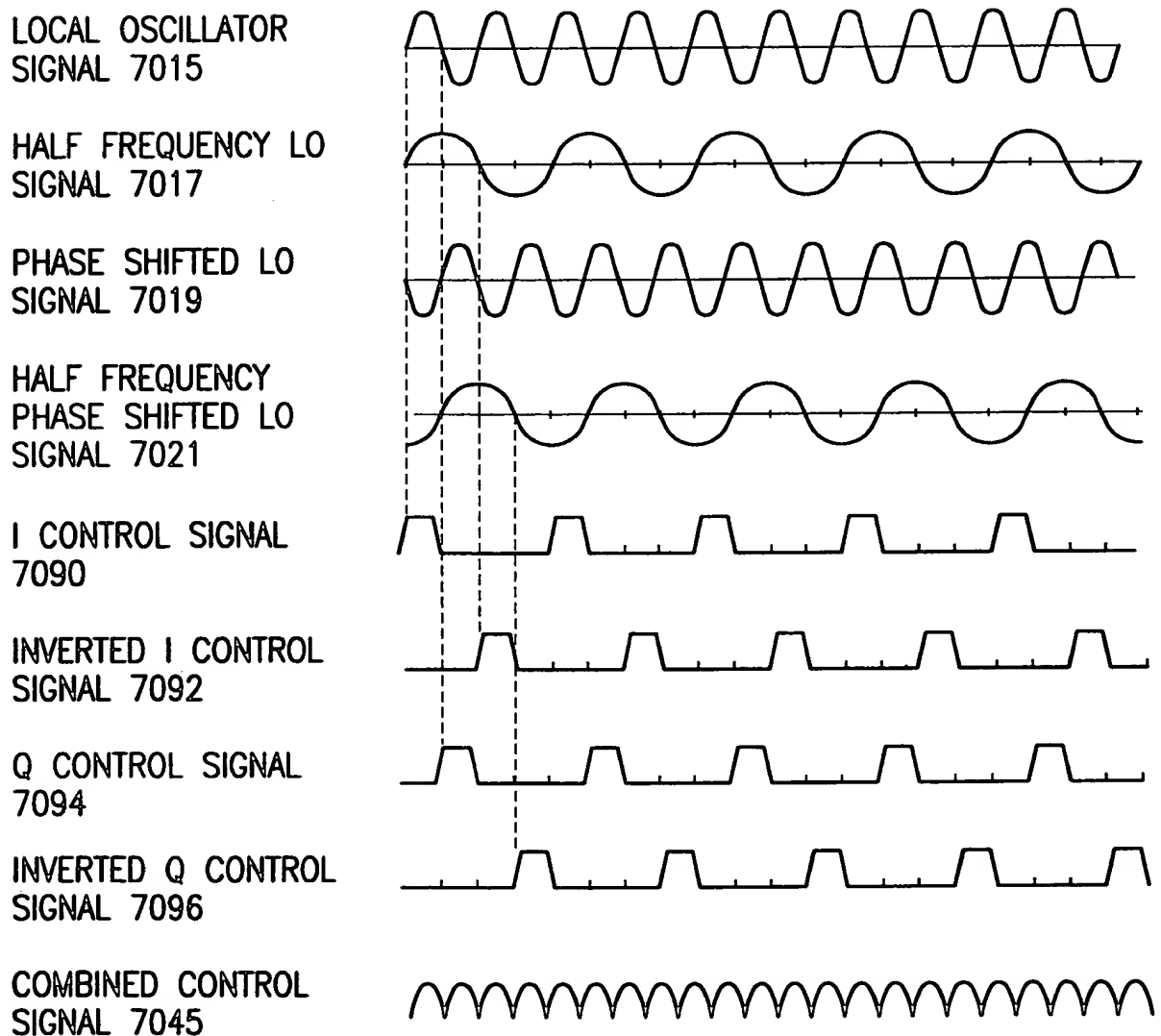


FIG.70C

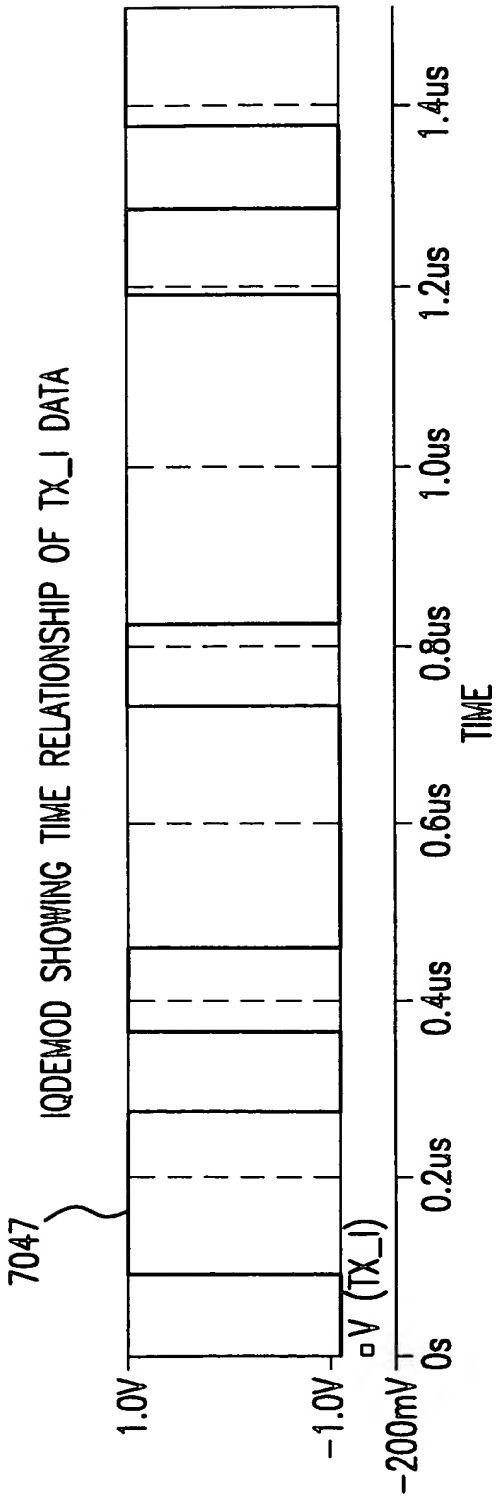


FIG. 70F

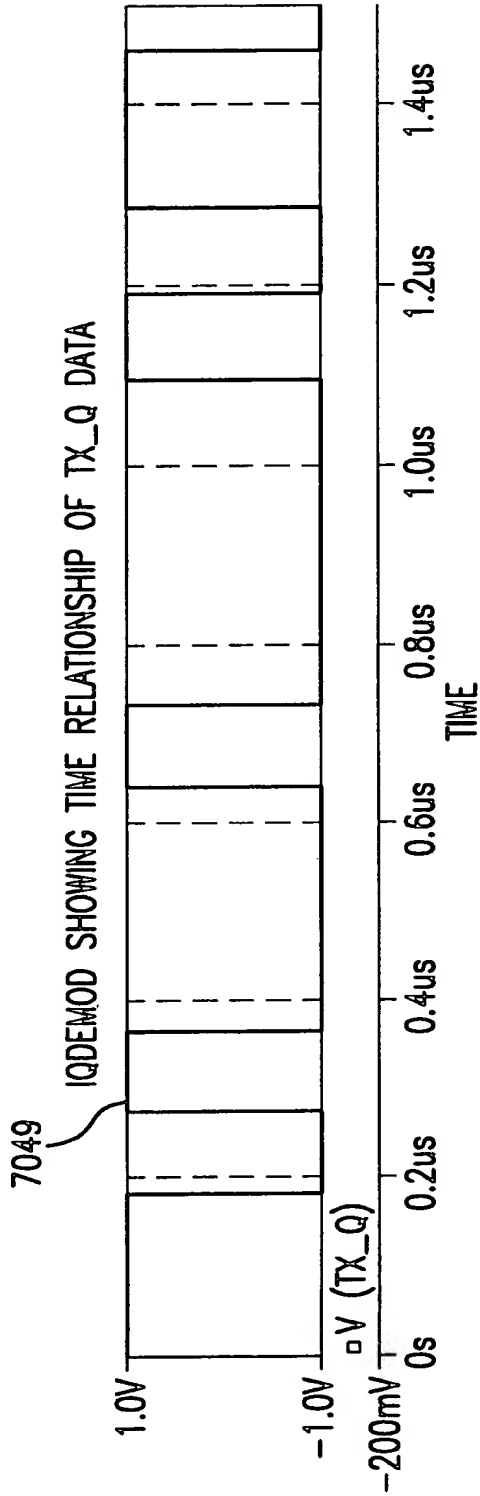


FIG. 70G

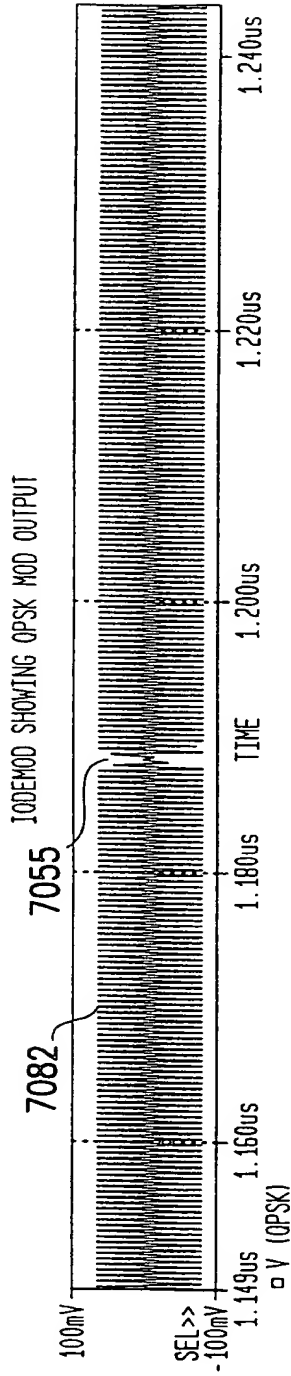


FIG. 70H

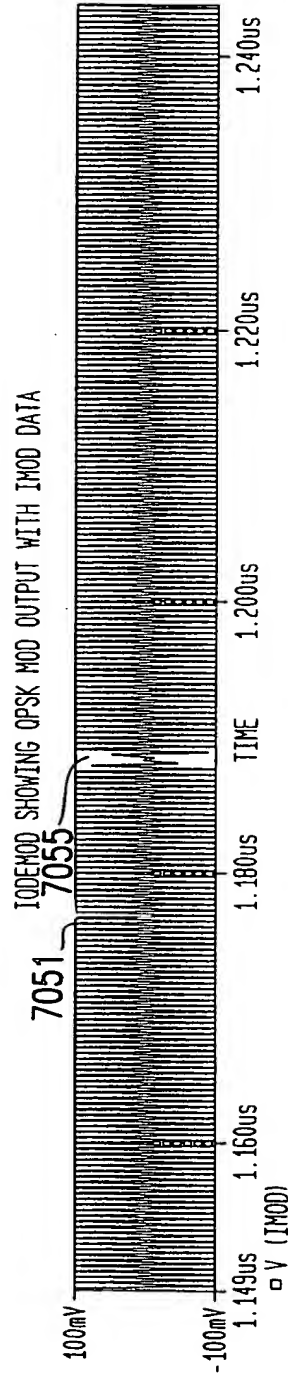


FIG. 70I

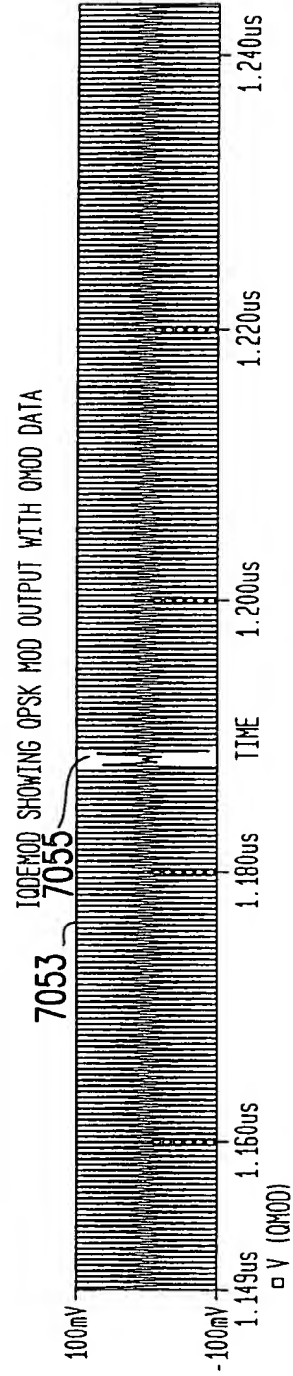


FIG. 70J

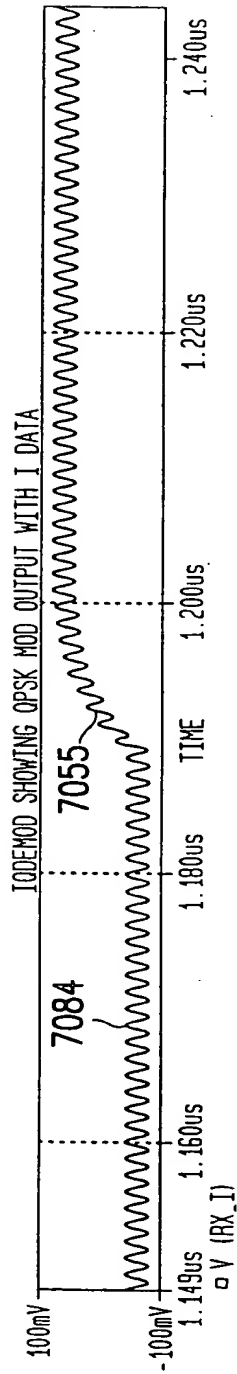


FIG. 70K

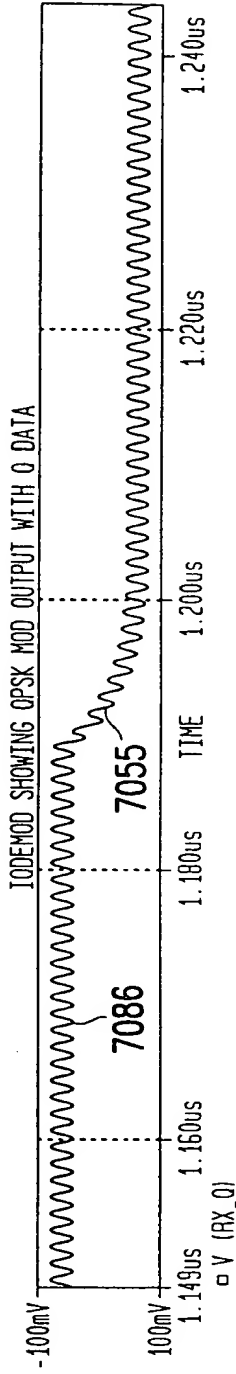


FIG. 70L

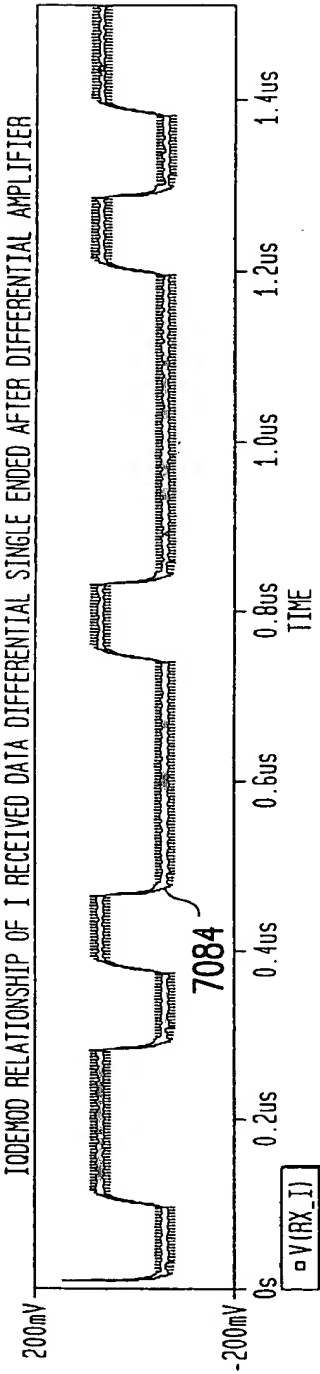


FIG. 70M

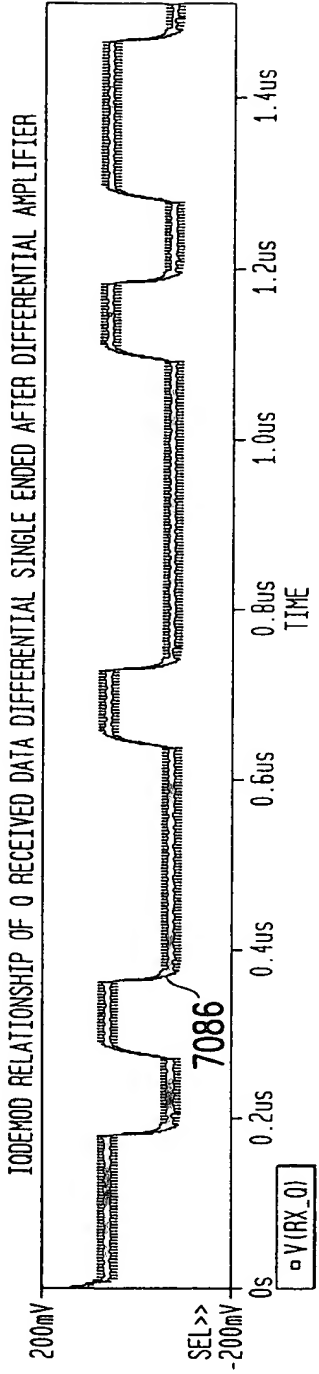


FIG. 70N

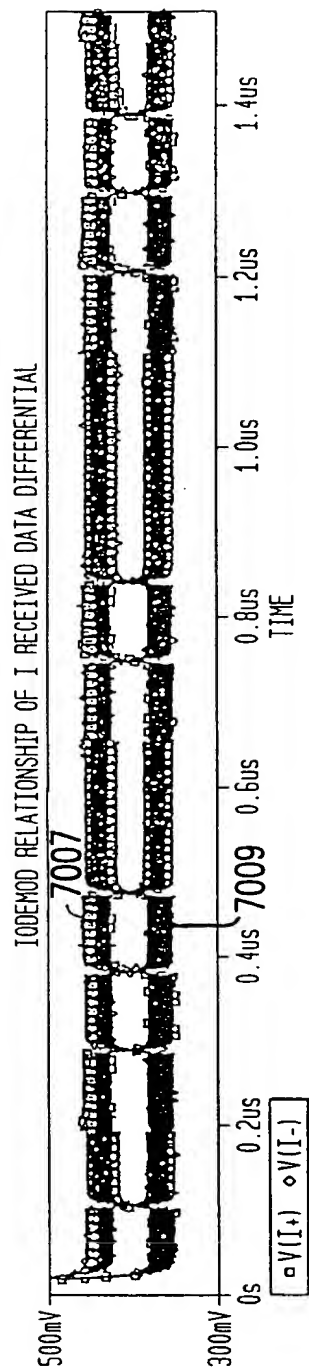


FIG. 700

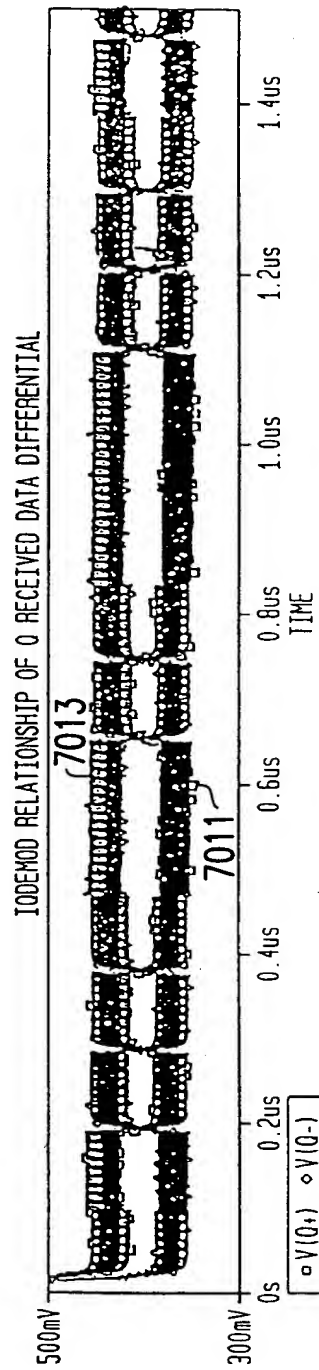


FIG. 70P

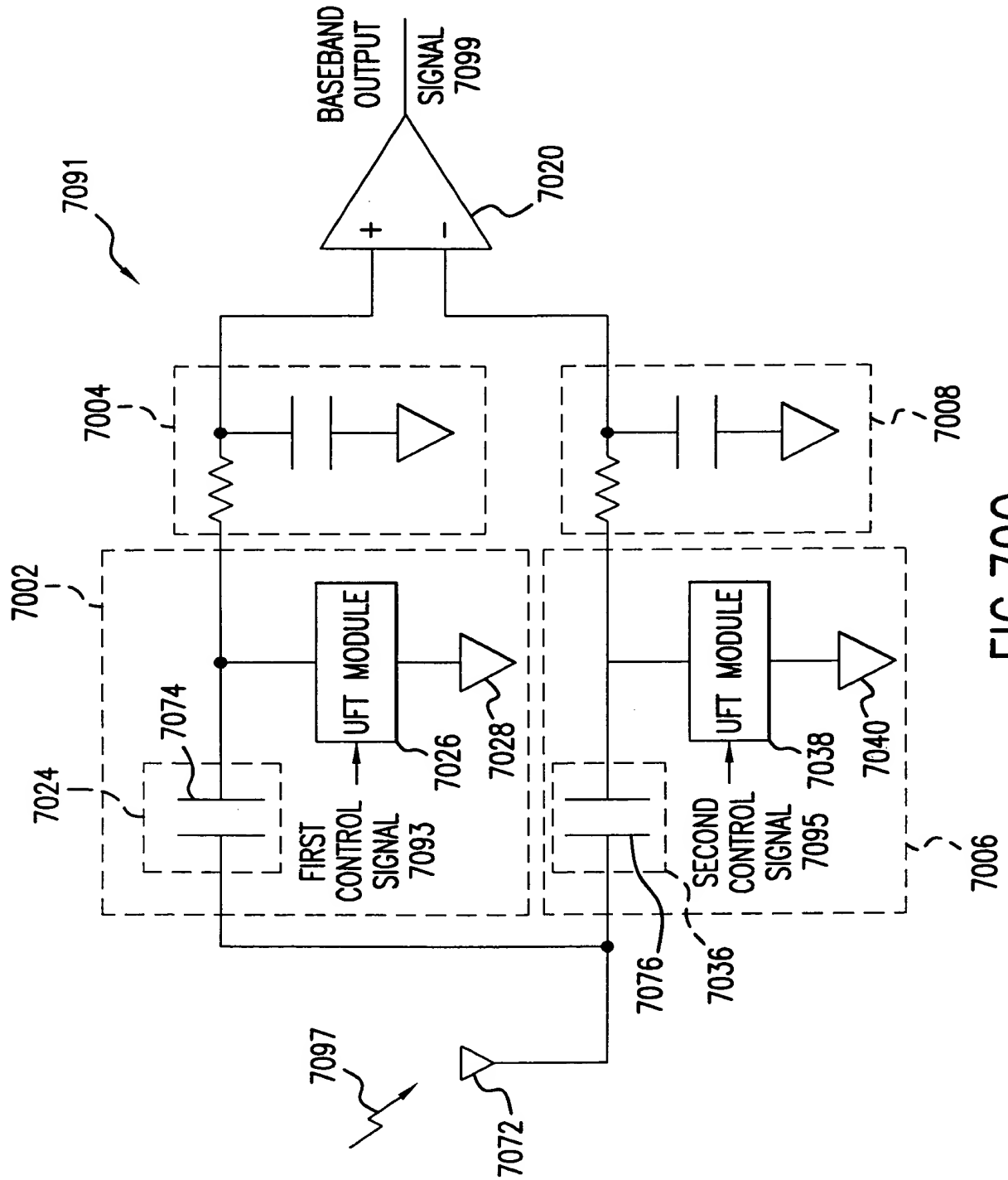


FIG. 700Q

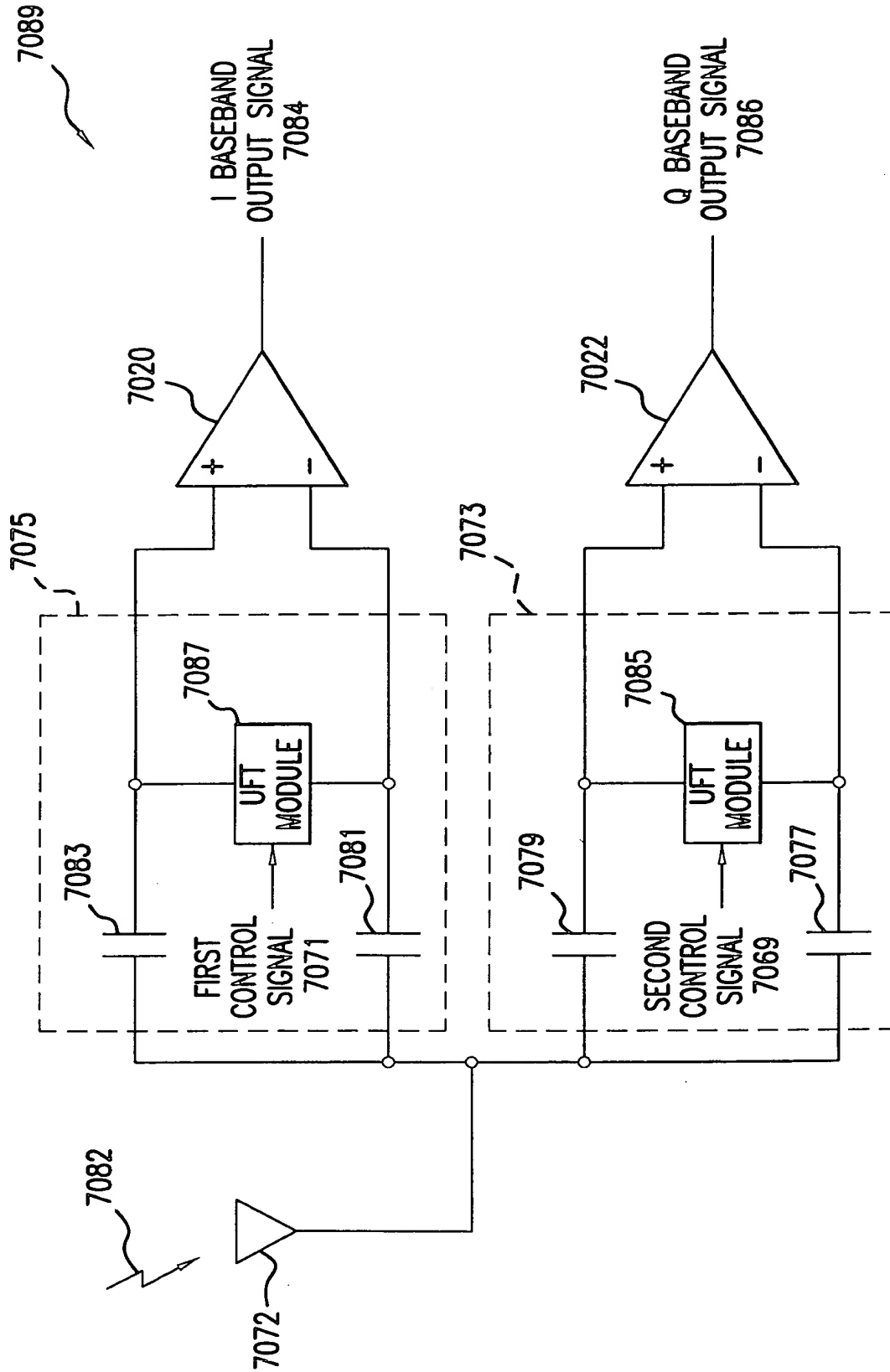
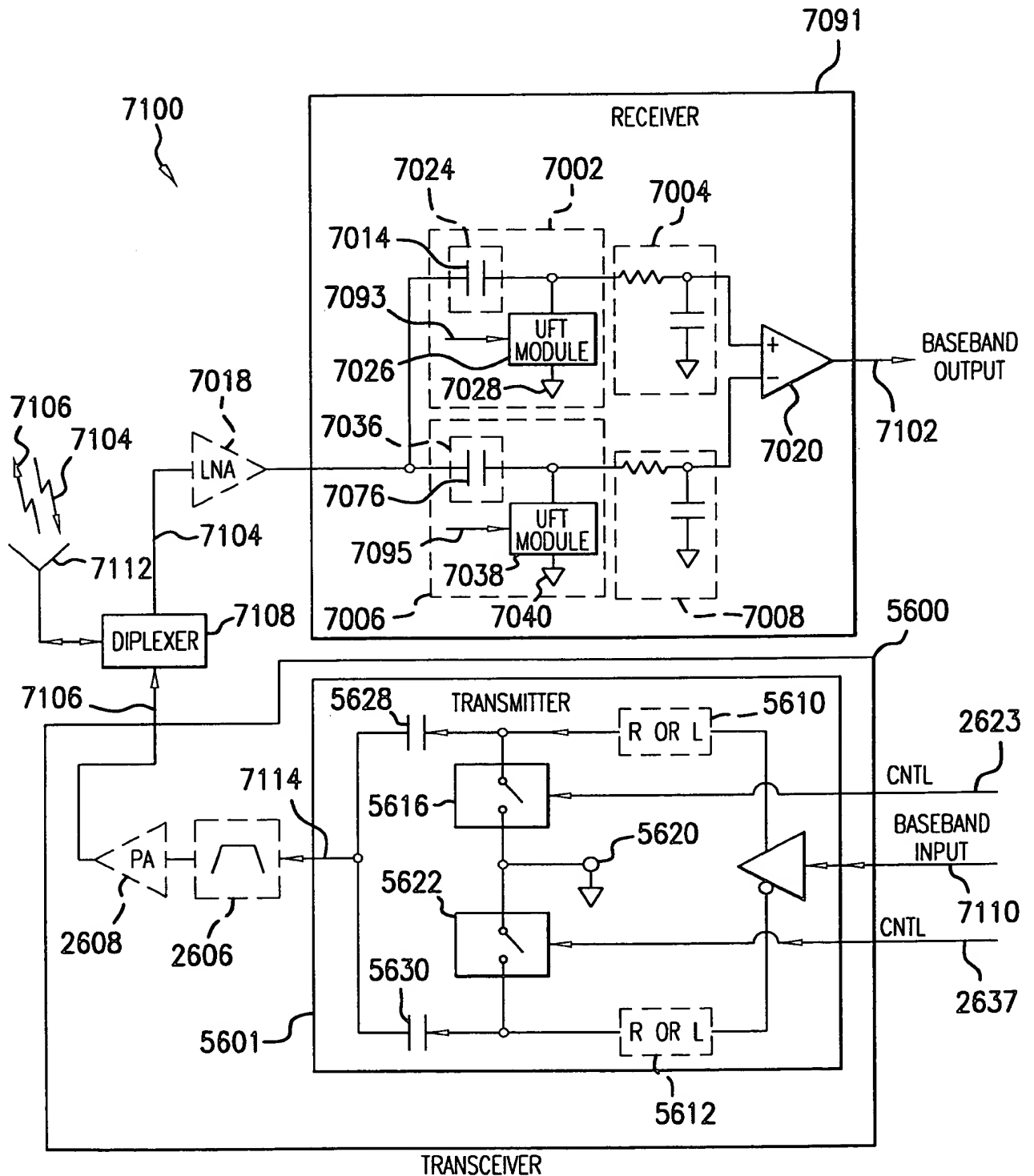


FIG. 70R



TRANSCIVER

FIG. 71

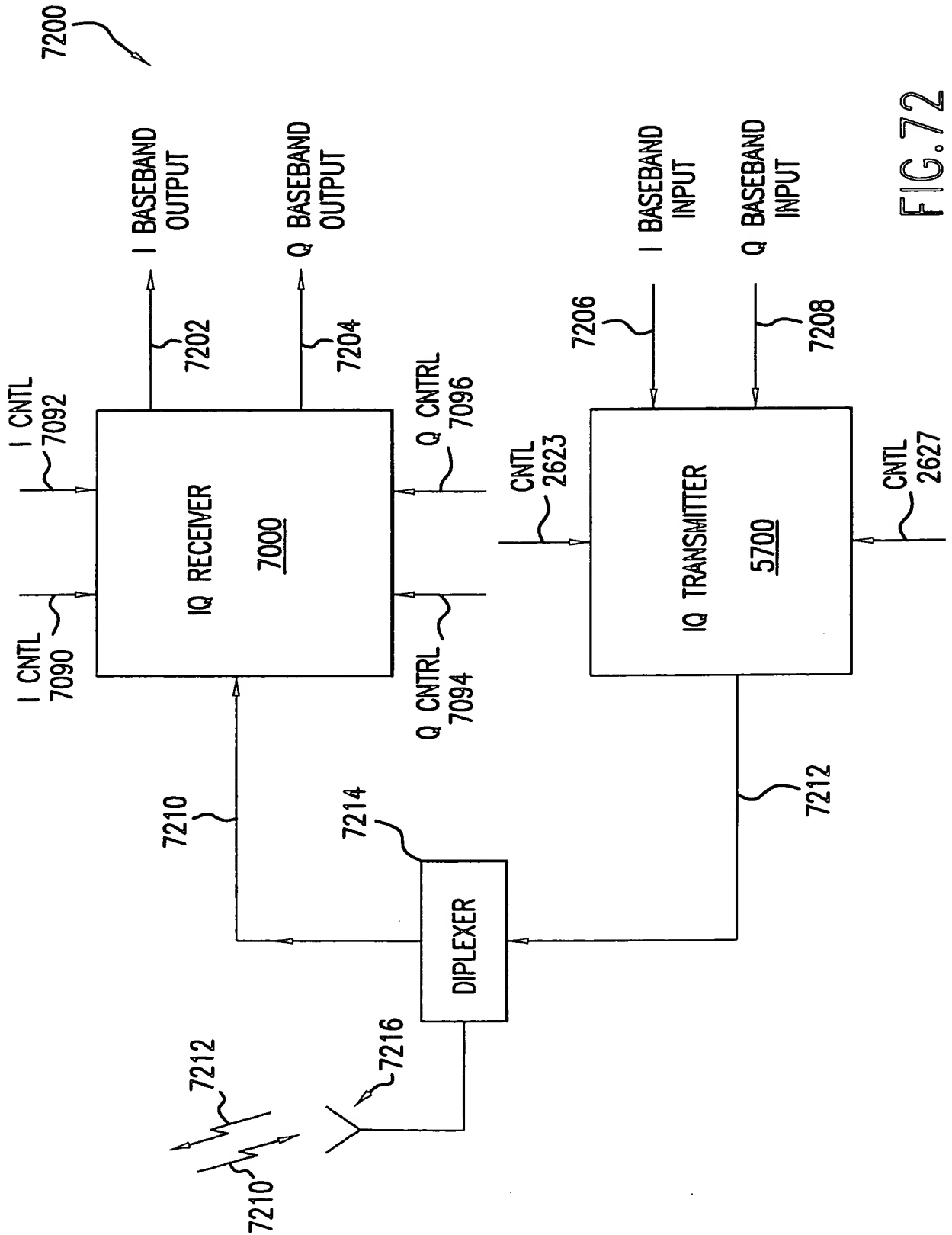


FIG. 72

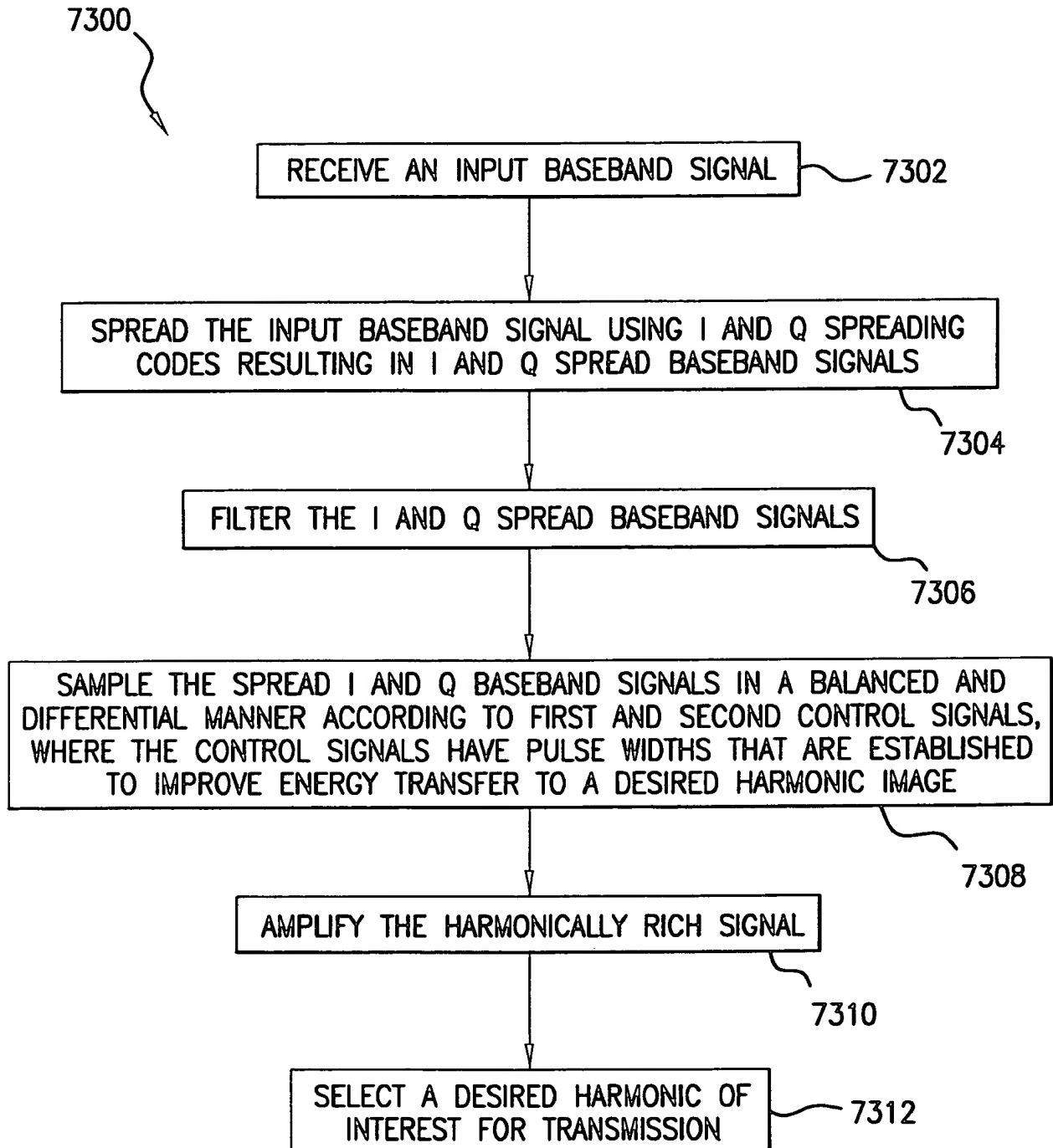


FIG.73

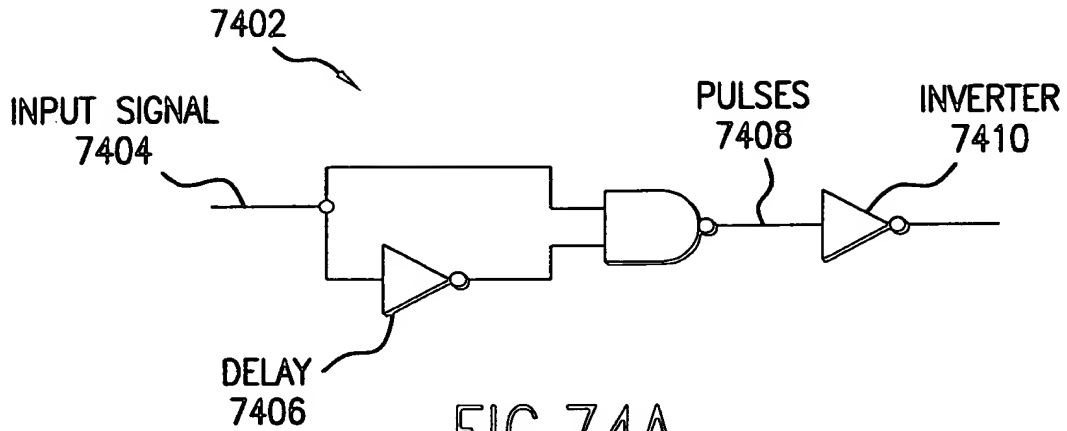


FIG. 74A

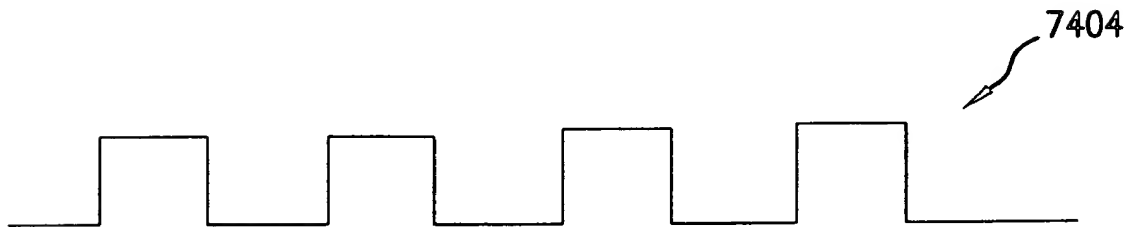


FIG. 74B

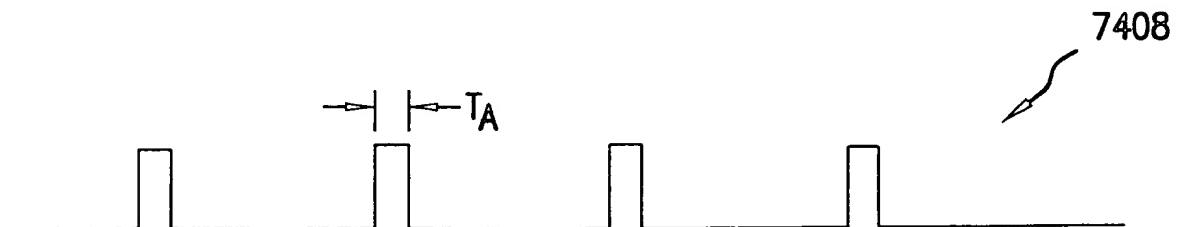
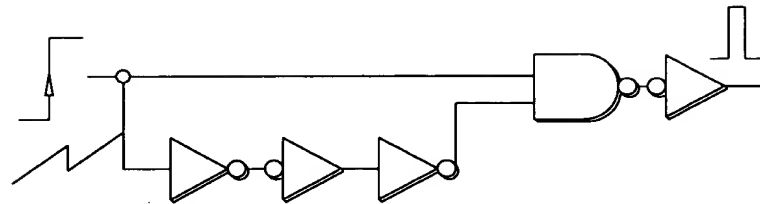


FIG. 74C

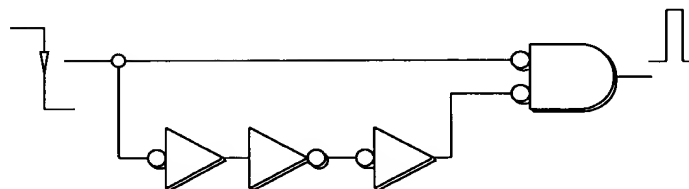
7412



ISING EDGE PULSE GENERATOR

FIG.74D

7416



FALLING EDGE PULSE GENERATOR

FIG.74E